

# SERVICE MANUAL

## AE-5 CHASSIS

MODEL	COMMANDER	DEST	CHASSIS NO.	MODEL	COMMANDER	DEST	CHASSIS NO.
<b>KV-29FQ65B</b>	RM-893	French	SCC-Q13G-A	<b>KV-29FQ65K</b>	RM-893	OIRT	SCC-Q16K-A
<b>KV-29FQ65E</b>	RM-893	ESP	SCC-Q14G-A				

## FD Trinitron



TRINITRON<sup>®</sup> COLOR TV  
**SONY<sup>®</sup>**

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## CAUTION

**SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR THE CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.**

## WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD DUE TO LIVE CHASSIS, THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE POWER LINE.

## SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED  $\Delta$  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## ATTENTION

**APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.**

## ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

## ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  $\Delta$  SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÉCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
French	B/G/H, D/K,L,I	GERMAN/NICAM Stereo	B/G/H VHF : E2-E12 UHF : E21-E69 DK : R01-R12, R21-R69, S01-S05	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H, D/K	GERMAN /NICAM Stereo	B/G/H VHF : E2-E12 UHF : E21-E69 DK : R01-R12, R21-R69, S01-S05	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
OIRT	B/G/H, D/K	GERMAN Stereo	B/G/H VHF : E2-E12 UHF : E21-E69 DK : R01-R12, R21-R69, S01-S05	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

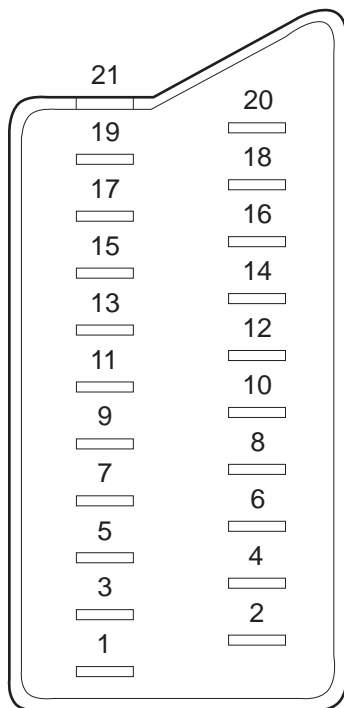
Model	KV-29FQ65B	KV-29FQ65E	KV-29FQ65K
Power Consumption	158W	158W	158W

Picture Tube	FD Trinitron Wide Approx 72 cm (29 inches) (Approx 68 cm picture measured diagonally) 104 degree deflection	Sound output	Right and Left speaker 2x20W (Music Power) 2x10W (RMS)
		Subwoofer	1x30W (Music Power) 1x15W (RMS)
<b>Input/Output Terminals [REAR]</b>		Power Requirements	220 - 240V
1: 21-pin Euro connector (CENELEC standard)	Inputs for Audio and Video signals. Inputs for RGB. Outputs of TV Video and Audio signals.	Dimensions	Approx 765x635x570mm
2: 21-pin Euro connector	Inputs for Audio and Video signals. Inputs for S Video. Outputs of TV Video and Audio signals. (selectable)	Weight	Approx 59kg
3: 21-pin Euro connector	Inputs for Audio and Video signals. Inputs for S Video. Outputs for Video and Audio signals (monitor out)	Supplied Accessories	RM-893 Remote Commander (1) IEC designated R6 battery (2)
Phono Jacks	Output Connectors variable for Audio Signals	Other Features	NexTVView, Digital Comb Filter, Noise Reduction, DRC 100Hz Picture, DRC 50Hz Picture, Graphic Equaliser
<b>Input/Output Terminals [FRONT]</b>		Remote control system	Infrared control
Headphone jack	stereo mini jack	Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Audio inputs	phono jacks	Dimensions	Approx 210x55x23mm (w/h/d)
Video inputs	phono jacks	Weight	Approx 110g (not including battery)
S Video input	4 pin DIN		

**Design and specifications are subject to change without notice.**

Model Name Item	KV-29FQ65B	KV-29FQ65E	KV-29FQ65K
Pal Comb	ON	ON	ON
PIP	OFF	OFF	OFF
RGB Priority	ON	ON	ON
Woofer Box	ON	ON	ON
Scart 1	ON	ON	ON
Scart 2	ON	ON	ON
Front in (3)	ON	ON	ON
Scart 4	ON	ON	ON
Projector	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON
Norm B/G	ON	ON	ON
Norm I	OFF	OFF	OFF
Norm D/K	ON	ON	ON
Norm AUS	OFF	OFF	OFF
Norm L	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF
Norm M	OFF	OFF	OFF
Teletext	ON	ON	ON
Nicam Stereo	OFF	ON	OFF

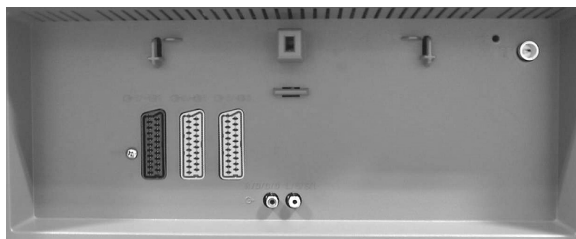
## 21 pin connector



Pin No	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
2	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedance : More than 10kohm*
7	○	●	●	Blue input	0.7 +/- 3dB, 75 ohms positive
8	○	○	○	Function select (AV control)	High state (9.5-12V) : Part mode Low state (0-2V) : TV mode Input impedance : More than 10K ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 +/- 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground (blanking)	
15	○	-	-	Red input	0.7 +/- 3dB, 75 ohms, positive
	-	○	○	(S signal Chroma input)	0.3 +/- 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1-3V) Low state (0-0.4V) Input impedance : 75 ohms
17	○	○	○	Ground (video output)	
18	○	○	○	Ground (video input)	
19	○	○	○	Video output	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
20	○	-	-	Video input	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
	-	○	○	Video input Y (S signal)	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected      ● Not Connected (open)      \* at 20Hz - 20kHz

## Rear Connection Panel



S Video socket pin configuration		
Pin No	Signal	Signal Level
1	Ground	-
2	Ground	-
3	Y (S signal) input	1V +/- 3dB 75ohm, positive Sync. 0.3V -3 +10dB
4	C (S signal) input	0.3V +/- 3dB 75ohm, positive Sync.



S-Video socket



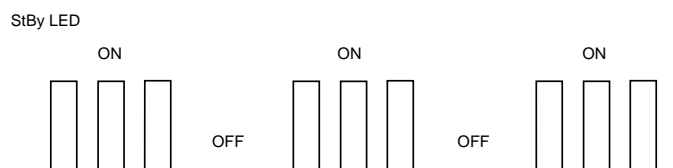
## AE-5 SELF DIAGNOSTIC SOFTWARE

The identification of errors within the AE-5 chassis is triggered in one of two ways :- 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED (Series of flashes which must be counted) See table 1., non fatal errors are reported using this method.

Diagnostic Item Description	No of times Standby LED Flashes	Probable cause Location	Detected Symptoms
Power does not turn on	Does not light	Power cord is not plugged in. Fuse is open circuit.	Power does not come on No power is supplied to the TV AC power supply is faulty
+B Overcurrent (OCP)	2 times	H.OUT (Q6803/6804) is shorted. (D Board) Linearity FET (Q6806) is shorted. (D Board) IC6604 Power IC is shorted. (D Board)	Power does not come on  Load on power line has shorted
Vertical Deflection stopped	4 times	+15V is not supplied R6835 open (D Board) -15V is not supplied R6834 open (D Board) IC6700 is shorted (D Board)	Vertical deflection pulse has stopped  Power line has shorted

Error Message	LED Code
No error	00
Reserved	01
OCP ( Over Current Protection )	02
OVP ( Over Voltage Protection )	03
Vertical Protection	04
Unstable AKB (check starts after 30's, enable TT61 disable TT62)	05
Horizontal Protection	06
Speaker Protection	07
I2C bus 0 error	08
M-B Tele-Text-Decoder	09
M-B ST24C32, NVM	10
J-B TDA9320, Main Colour Decoder	11
B1/B2-B Feature Box	12
B1-B D/A-Converter	13
E-B Backend	14
J-B MSP3410D, Sound Processor	15
J-B CXD2057, Auto Wide	16
External RAM	17

### Flash Timing Example : e.g. error number 3



## Error Detection Monitor

Device acknowledge is used to check IIC errors. Device acknowledge is checked by sending an IIC start sequence during CRT power on. Each device is checked three times, if there is no acknowledge after each attempt, it will be regarded as an error. There are three steps to check for errors.

1. IIC line 0  
If all devices except the NVM have errors, IIC line 0 error is displayed.
2. Board check  
If all devices mounted on one board have errors, board error is displayed.
3. Each device check  
If IIC line error and board error are not detected then the device with the error is displayed.

**The detected errors can be displayed as follows :**

1. Error Monitor Menu.
2. Error Reader.

### 1. Error Monitor Menu

ERROR MONITOR

1. IGNORE ERRORS   OFF                      ON                      OFF

Operating Time :                      000075                      h                      15                      min

Stored Errors :

1.     D1 - B CXA1875 or MB88141

2.     No Error Occured

3.     No Error Occured

4.     No Error Occured

5.     No Error Occured

Current Error :

Start Error Sequence

Last menu   ◀   Enter Item   ▶

## 2. Error Reader Display

The error reader display is connected to the service connector to read actual error codes. The part number for the error reader display is S-188-900-10. Once an error has been detected it will then be displayed on the two digit error reader. The errors displayed refer to the following table.

Error Code	Error Message
000h	No error occurred
001h	Bus error, IIC0
002h	Bus error, IIC1
<b>100h</b>	<b>A-Board</b>
101h	A-B CXA1875, Port Expander
102h	A-B TU1326, Main Tuner
103h	A-B TU1350, Sub Tuner
<b>200h</b>	<b>B1-Board</b>
201h	B1-B P83C654, Feature Box B1-B. SDA9280, D/A Convertor
202h	B1-B P83C654, Feature Box B1-B. SDA9280, D/A Convertor
<b>300h</b>	<b>B2-Board</b>
301h	B2-B. SAA4977, BESIC
302h	B2-B. SAA495X, Field Memory
<b>400h</b>	<b>B3-Board</b>
401h	B3-B. MID-X
402h	B3-B. Panorama
403h	B3-B. DRC
404h	BK-B. Picture Booster
<b>500h</b>	<b>D1-Board</b>
501h	D1-B CXA8070, Dynamic Convertor
502h	D1-B CXA1875, Port Expander
<b>600h</b>	<b>E-Board</b>
601h	E-B CXD2100, Backend
<b>700h</b>	<b>J-Board</b>
701h	J-B CXD2057, Auto Wide
702h	J-B SDA9288, PIP
703h	J-B Sub Colour Decoder
704h	J-B Main Colour Decoder
705h	J-B CXA1875, Sub-Sound
706h	J-B TDA7309, HP-Amplifier
707h	J-B TEA6422DT, Audio Switch
708h	J-B MSP3410D, Sound Processor
709h	J-B TC9337F, Sound DSP
70Ah	J-B CXA21X69, AV Switch
<b>800h</b>	<b>M-Board</b>
801h	M-B ST24C32, NVM

The operating instructions mentioned here are partial abstracts from the 'Operating Instruction Manual'. The page numbers of the 'Operating Instruction Manual' remain as in the manual.

## Operation

### Using the TV menu system

The TV consists of a menu system which is based on a series of user friendly on-screen displays and menus. These displays will help you get the most from your TV, helping you to change picture and sound settings, to alter the size of the TV picture and to rearrange the TV channels etc.

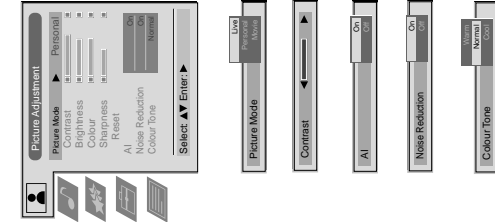
### Adjusting the picture and sound

The picture and sound are preset at the factory. You can however adjust them to suit your own taste.

1. Press the MENU button on the remote control to display the menu on the TV screen.
2. Press the **▲** or **▼** buttons to select **Picture Adjustment** for picture settings or **Audio Adjustment** for sound settings then press **▶** to enter either the 'Picture Adjustment' menu or the 'Audio Adjustment' menu.
3. Press the **▲** or **▼** buttons to select the item on the screen you wish to adjust then press **▶** to confirm. For a description of the menu items and their effects, see the table below.
4. Press the **▲**, **▼**, **▶** or **◀** buttons to adjust your selected item.
5. As soon as you have adjusted the item, press the OK button to store the new setting.
6. Repeat steps 3-5 if you wish to adjust any of the other items.
7. Press the MENU button to remove the menu from the TV screen.

### Picture Control

Item	Effect/Operation
Picture Mode	<ul style="list-style-type: none"> <li>▼ Live (for live broadcasts)</li> <li>▲ Personal (for individual settings)</li> <li>▲ Movie (for movie broadcasts)</li> </ul>
Contrast	Less ▲▲ More
Brightness*	Darker ▲▲ Brighter
Colour*	Less ▲▲ More
Hue**	Reddish ▲▲ Greenish
Sharpness*	Softer ▲▲ Sharper
*Only available if 'Personal' is selected in 'Picture Mode'	
**Only available for NTSC colour signal (eg. US video tapes)	
Reset	Resets picture to the factory preset levels
AI (Artificial Intelligence)	<ul style="list-style-type: none"> <li>▼ On: Automatic optimization of contrast level according to the TV signal.</li> <li>▲ Off: Normal.</li> </ul>
Noise Reduction	<ul style="list-style-type: none"> <li>▼ On: Reduces picture noise in case of a weak broadcasting signal.</li> <li>▲ Off: No noise reduction.</li> </ul>
Colour Tone	<ul style="list-style-type: none"> <li>▼ Warm: Gives a warm tint to the picture.</li> <li>Normal: Normal.</li> <li>▲ Cool: Gives a cool tint to the picture.</li> </ul>

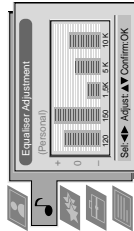
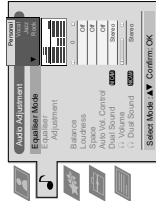


## SECTION 1 GENERAL

Using the TV menu system:

### Sound Control

Item	Effect/Operation
Equaliser Mode	<ul style="list-style-type: none"> <li>▼ Personal</li> <li>Vocal</li> <li>Jazz</li> <li>Rock</li> <li>Pop</li> <li>▲ Flat (fixed setting, cannot be adjusted)</li> </ul>
Equaliser adjustment	<p>You can adjust the mode selected in Equaliser mode by cutting and boosting the 5 selected frequency bands. Press <b>◀</b> or <b>▶</b> to select the frequency band then <b>▼</b> or <b>▲</b> to adjust the frequency. Finally, press the OK button to store the new adjustment.</p> <p>If you want to store the new setting, you need to set the Equaliser mode to 'Personal'. Personal mode permanently stores the setting, all other modes (Vocal, Jazz, Rock, Pop) store only until the next mode change.</p>
Balance	<ul style="list-style-type: none"> <li>◀ More left</li> <li>▶ More right</li> </ul>
Loudness	<ul style="list-style-type: none"> <li>▼ Off: Normal</li> <li>▲ On: For music broadcasts</li> </ul>
Space	<ul style="list-style-type: none"> <li>▼ Off: Normal</li> <li>▲ On: Special acoustic effect</li> </ul>
Auto Vol. Control	<ul style="list-style-type: none"> <li>▼ Off: Volume level changes according to the broadcast signal.</li> <li>▲ On: Volume level of the channels will stay the same independent of the broadcast signal (eg in the case of advertisements).</li> </ul>
Dual Sound	<p>For a bilingual broadcast:</p> <ul style="list-style-type: none"> <li>▼ A for channel 1</li> <li>▲ B for channel 2</li> </ul> <p>For a stereo broadcast:</p> <ul style="list-style-type: none"> <li>▼ Mono</li> <li>▲ Stereo</li> </ul>
Headphones	Adjusts headphone volume.
Volume	Can also adjust the volume level of additional equipment connected to the RCA sockets on the rear of the TV.
Dual Sound	<p>For a bilingual broadcast:</p> <ul style="list-style-type: none"> <li>▼ A for channel 1</li> <li>▲ B for channel 2</li> </ul>



Using the TV menu system:

### Using the Features menu

1. Press the MENU button on the remote control to display the menu on the TV screen.
2. Press the  $\blacktriangle$  or  $\blacktriangledown$  buttons to select  $\star$  for the 'Features' menu then press  $\blacktriangleright$  to enter the 'Features' menu.
3. Press the  $\blacktriangle$  or  $\blacktriangledown$  buttons to select the desired menu item then press  $\blacktriangleright$  to confirm. For a description of the menu items and their effects, see the table below.
4. Press the  $\blacktriangle$ ,  $\blacktriangledown$ ,  $\blacktriangleright$  or  $\blacktriangleleft$  buttons to select the desired setting.
5. Press the OK button to confirm your choice of setting.
6. Repeat steps 3-5 if you wish to select any of the other items.
7. Press the MENU button to remove the menu from the TV screen.

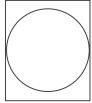
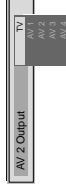
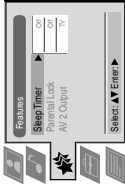
Item	Effect/Operation
Sleep Timer	You can select a time after which the TV switches itself into standby mode. $\blacktriangledown$ Off $\blacktriangle$ 90 min
Parental Lock	$\blacktriangledown$ Off: No parental lock. $\blacktriangle$ On: This feature disables the TV buttons when the set is in standby mode. It is only possible to switch the set back on by pressing a button on the remote control.
AV2 Output	$\blacktriangledown$ TV audio/video signal from the aerial $\Pi$ AV1 audio/video signal from scart 1 AV2 audio/video signal from scart 2 AV3 audio/video signal from scart 3 $\blacktriangle$ AV4 audio/video signal from connectors on front of the TV

### Changing the screen size

This feature allows you to change the size of the TV picture.

Press the  $\text{⏏}$  button on the remote control repeatedly or use the  $\blacktriangle$  or  $\blacktriangledown$  buttons to select one of the following formats then press the OK button to confirm your selection:

- 4:3 conventional 4:3 picture size, full picture information.  
16:9 for 16:9 broadcasts.



4:3



16:9

### Installation

## 6. Tuning your TV

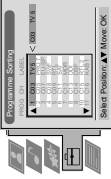
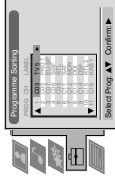
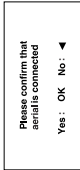
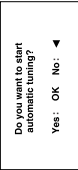
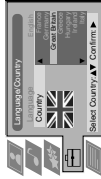
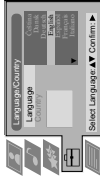
Before you tune your TV, you will be asked to set your language and country.

1. The Language/Country menu appears on the TV screen with the word 'English' highlighted.
2. Press the  $\blacktriangle$  or  $\blacktriangledown$  buttons on the remote control to select your chosen language then press the OK button to confirm. The country menu appears on screen with the word 'OFF' highlighted. Select 'OFF' if you do not want your channels stored in a given channel sequence starting from programme position 1.
3. Press  $\blacktriangle$  or  $\blacktriangledown$  to select the country in which you wish to operate the TV then press the OK button to confirm your choice.
4. The 'autotune' menu appears on the TV screen in your selected language. Press the OK button to confirm.
5. Ensure the aerial is connected as instructed, then press the OK button to confirm. The TV starts to automatically search and store all available channels for you. This may take a few minutes - please be patient and do not press any buttons.
6. Once the TV has tuned all available channels the 'Programme Sorting' menu appears on the TV screen enabling you to change the order of the channels on your TV. If you wish to change the channel order, press the  $\blacktriangle$  or  $\blacktriangledown$  buttons to select the channel you want to move, then press  $\blacktriangleright$ . Press the  $\blacktriangle$  or  $\blacktriangledown$  buttons to select the new programme number position for your selected channel then press the OK button to confirm. The selected channel now moves to its new programme position and the other channels move accordingly. Repeat this procedure if you wish to sort the order of other channels on your TV.

7. Press the MENU button to remove the menu from the TV screen.

8. Press the PROG $\pm$  or the numbered buttons to view the TV channels.

Note: If you would like to stop the autotune process at any stage, press the OK button.



## 7. Finding your video channel

If you have connected a VCR to your TV, you now need to find your video channel.


1. Press the PROG $\pm$  buttons on the TV remote control until your video picture appears on the TV screen.

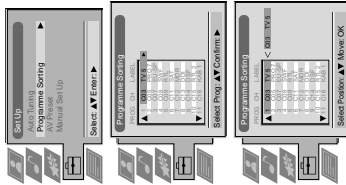
Note: If you wish to move your video channel to a different programme position, refer to the 'Re-arranging the TV channels' section of this instruction manual.

Using the TV menu system:

## Re-arranging the TV channels


**i** After tuning the TV, you can use this feature to change the order of the channels on the TV.

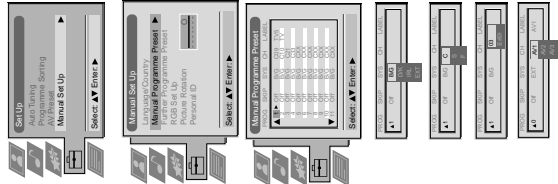
1. Press the MENU button on the remote control to display the menu on the TV screen.
2. Press the ▼ button to select the  symbol on the menu screen then press ► to enter the 'Set Up' menu.
3. Press the ▼ button to select 'Programme Sorting' then press ► to enter the 'Programme Sorting' menu.
4. Press the ▲ or ▼ buttons to select the channel you want to move then press ► to confirm.
5. Press the ▲ or ▼ buttons to select the new programme position (eg PROG 4) for your selected channel then press the OK button to confirm. The selected channel now moves to its new programme position and the other channels move accordingly.
6. Repeat steps 4 and 5 if you wish to sort the other channels.
7. Press the MENU button to remove the menu from the TV screen.



## Manually tuning the TV

**i** You have already tuned the TV automatically using the instructions at the start of this manual. You can however carry out this operation manually, adding channels to the TV, one at a time.

1. Press the MENU button on the remote control to display the menu on the TV screen.
2. Press the ▼ button to select the  symbol on the menu screen then press ► to enter the 'Set Up' menu.
3. Press the ▼ button to select 'Manual Set Up' on the menu screen then press ► to enter the 'Manual Programme Preset' menu.
4. Press the ▼ button to select 'Manual Programme Preset' on the menu screen then press ► to enter the 'Manual Programme Preset' menu.
5. Press the ▲ or ▼ buttons to select a programme number for your channel (eg PROGR 1 for BBC1) then press ► to highlight the 'SKIP' column.
6. Press ► to select 'OFF' then press ► to highlight the 'SYS' column.
7. Press the ▲ or ▼ buttons to select the TV broadcast system or 'EXT' for a video input source (AV1, AV2, ...) then press ► to confirm.
8. Press the ▲ or ▼ buttons to select 'C' for terrestrial channels, 'S' for cable channels, or 'F' for direct frequency inputs then press ► to confirm.
9. Select the first number digit of 'CH' (channel) then the second number digit of 'CH' with the number buttons on the remote control or Press the ▼ button to search for the next available channel.
10. If you do not wish to store this channel on the programme number you selected, press the ▼ button to continue searching for the desired channel.
11. If this is the channel you wish to store, press the OK button.
12. Repeat steps 5-11 if you wish to store more channels then press the MENU button to remove the menu from the TV screen.




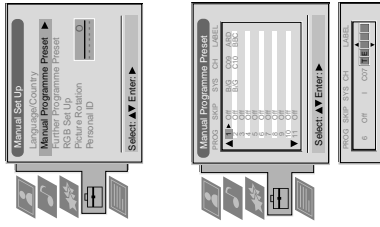
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Using the TV menu system:

## Naming a channel


**i** Names for channels are usually taken automatically from Teletext if available. You can however name a channel or an input video source using up to five characters (letters or numbers).

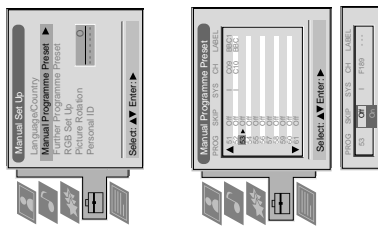
1. Press the MENU button on the remote control to display the menu on the TV screen.
2. Press the ▼ button to select the  symbol on the menu screen then press ► to enter the 'Set Up' menu.
3. Press the ▼ button to select 'Manual Set Up' then press ► to enter the 'Manual Set Up' menu.
4. Press the ▼ button to select 'Manual Programme Preset' then press ► to enter the 'Manual Programme Preset' menu.
5. Press the ▲ or ▼ buttons to select the channel you wish to name.
6. Press the ► button repeatedly until the first element of the 'LABEL' column is highlighted.
7. Press the ▲ or ▼ buttons to select a letter or number (select '-' for a blank) then press ► to confirm. Select the other four characters in the same way.
8. After selecting all the characters, press the OK button.
9. Repeat steps 5 to 8 if you wish to label other channels.
10. Press the MENU button to remove the menu from the TV screen.



## Skipping programme positions

**i** This function enables you to skip unused programme positions when selecting them with the PROG +/- buttons. However, by using the number buttons you can still select the skipped programme position.

1. Press the MENU button on the remote control to display the menu on the TV screen.
2. Press the ▼ button to select the  symbol on the menu screen then press ► to enter the 'Set Up' menu.
3. Press the ▼ button to select 'Manual Set Up' then press ► to enter the 'Manual Set Up' menu.
4. Press the ▼ button to select 'Manual Programme Preset' then press ► to enter the 'Manual Programme Preset' menu.
5. Press the ▲ or ▼ buttons to select the programme position then press ► to highlight the 'SKIP' column.
6. Press the ▲ or ▼ buttons to select 'Off' or 'On' (if you wish to skip this programme position) then press the OK button to store.
7. Repeat steps 5 and 6 if you wish to skip or unskip further programme positions.
8. Press the MENU button to remove the menu from the TV screen.



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## Operation

### NexTVView\*

\* depending on availability of service



NexTVView is an electronic programme guide with up to 1 week\* of programme information on those channels included in the selected provider.

\*If the data exceeds the memory of NexTVView, you will get information on less than 7 days.

When looking for information you can search by theme (sports, art etc.), date or time (e.g. broadcasts between 8 and 9 p.m.). When you've found a programme you can go directly to this programme, use the timer to remind you of it or preset your VCR with Smartlink.

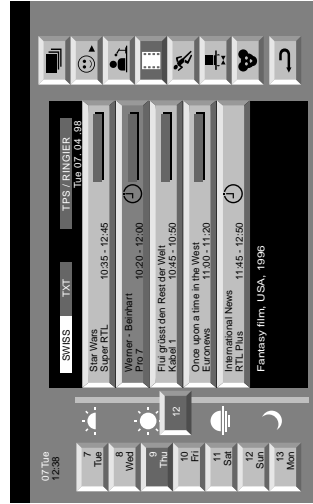
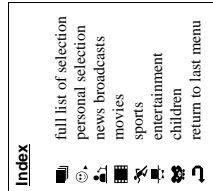


The NexTVView provider is responsible for the contents of the guide. The TV set is responsible for the presentation, that is the menu structure and the navigation, if there is none from the provider. If there is a navigation from the provider the basic operation with the joystick is the same as described in the Sony navigation.

At first you need to select a channel providing a NexTVView service. In this case the indication "NexTVView" is displayed as soon as all data is available. When you later change the channel you can still select this NexTVView service.

## Operation using the Sony navigation

- Press **⏏** to switch NexTVView on and off.
- Use the joystick buttons as follows
  - moving up or downwards within a column: Use **▲** or **▼**.
  - going to the left column time and date: Use **◀**.
  - going to the right column icons: Use **▶**.
  - Confirming a selection: Press **OK**.
  - while in the columns date, time or icon (themes), the programme list changes according to the selection.
  - while in the programme list, confirming a running broadcast brings you directly to the TV programme or confirming a future programme brings you to the long info menu.



## Operation

### NexTVView\*

## Individual Setting

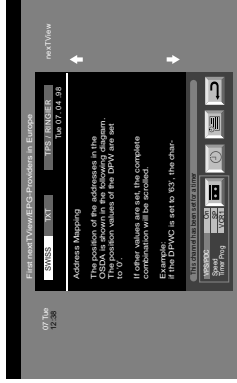


When you select **■**, there will be no personal pre-selection. **⊕**, lets you make your own individual selection of themes, limiting the search to the marked ones.

- Select **⊕**, using **▲** or **▼** Push **▶** to enter.  
The menu Individual Settings is displayed.
- Select the item you wish to mark using **▲** or **▼** Confirm by pressing **OK**.  
Repeat step 2 for all the items you wish to have in your list.
- When finished with the list, select **➔** using **▶** and press **OK**.

## Using the 'Long Info' menu

- Select a future programme in the column programme list using **▲** or **▼**. Press **OK**.  
The long info menu is displayed.



**You may wish to record the selected programme with your VCR.**  
(only with Smartlink VCRs)

- Select **⏏** using **◀** and press **OK**.  
This information is transferred to the VCR connected to your set.

## Setting up your VCR

- Select VPS/PDC by pushing **◀** repeatedly.

With this setting on, you have the guaranteed recording of the whole broadcast should there be a change in the TV programme. This only works if the selected channel broadcasts a VPS/PDC signal.

- Select **On** or **Off** using **OK**.

- Select Speed using **▼**.



Select between standardplay (SP) or longplay (LP) mode. With longplay you can record twice as much on a videotape. The picture quality, however, may suffer.

- Select **SP** or **LP** using **OK**.

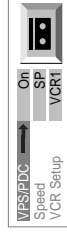
- Select VCR Setup using **▼**.



Select which of the connected Smartlink VCRs you wish to programme.

- Select VCR 1 or 2 using **OK**.


- Select **➔** using **▶**. Press **OK**.  
You are back in the last menu.



Using the TV menu system:

## Using the Further Programme Preset feature

**i** With this feature you can a) individually adjust the volume level of each channel, b) manually fine-tune the TV to obtain a better picture reception if the picture is distorted or c) preset the AV output for the programme positions of channels with scrambled signals (eg from a pay TV decoder). In this way a connected VCR records the unscrambled signal.

1. Press the MENU button on the remote control to display the menu on the TV screen.
2. Press the ▼ button to select the  symbol on the menu screen then press ► to enter the 'Set Up' menu
3. Press the ▼ button to select 'Manual Set Up' then press ► to enter the 'Manual Set Up' menu.
4. Press the ▼ button to select 'Further Programme Preset' then press ► to enter the 'Further Programme Preset' menu.
5. Press the ▲ or ▼ buttons to select the relevant programme number then press the ► button repeatedly to select a) VOL b) AFT or c) DECODER. The selected item changes colour.
6. a) **VOL - Volume Offset**  
Press the ▲ or ▼ buttons to adjust the volume level (range -7 to +7) of the channel. Store by pressing the OK button. Repeat steps 5 and 6a if you wish to adjust the volume level of the other channels.

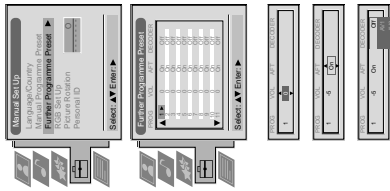
### b) AFT - Automatic Fine Tuning

Press the ▲ or ▼ buttons to fine tune the channel frequency over a range of -15 to +15. Press the OK button to confirm. Repeat steps 5 and 6c if you wish to fine tune other channels.

### c) DECODER

Press the ▲ or ▼ buttons to select AV1 or AV2 for the programme position then press the OK button to confirm. You can now attach a decoder to the AV1 or the AV2 socket on the back of the TV and the picture from that decoder will appear on this programme number. Repeat steps 5 and 6d to preset the AV output for other programme positions.

7. Press the MENU button to remove the menu from the TV screen.




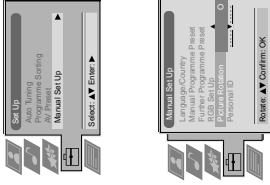
17

Using the TV menu system:

## Adjusting the picture rotation




**i** Because of the earth's magnetism the picture might slant. In this case you can readjust the picture.

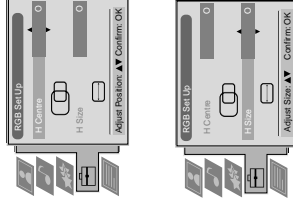
1. Press the MENU button on the remote control to display the menu on the TV screen.
2. Press the ▼ button to select the  symbol on the menu screen then press ► to enter the 'Set Up' menu.
3. Press the ▼ button to select 'Manual Set Up' then press ► to enter the 'Manual Set Up' menu.
4. Press the ▼ button to select 'Picture Rotation' then press ► to enter the 'Picture Rotation' sub menu.
5. Press the ▲ or ▼ buttons to rotate the picture over a range of -5 to +5 then press the OK button to store.
6. Press the MENU button to remove the menu from the TV screen.



## Adjusting the picture geometry for an RGB source

**i** When connecting an RGB source such as a Sony Playstation you may need to readjust the geometry of the picture.

1. Press the  button on the remote control to select the connected RGB source .
2. Press the MENU button to display the menu on the TV screen.
3. Press the ▼ button to select the  symbol on the menu screen then press ► to enter the 'Set Up' menu.
4. Press the ▼ button to select 'Manual Set Up' on the menu screen then press ► to enter the 'Manual Set Up' menu.
5. Press the ▼ button to select 'RGB Set Up' on the menu screen then press ► to enter the 'RGB Set Up' sub menu.
6. Press ► to select H Centre then press ▲ or ▼ to adjust the centre of the picture over a range of -10 to +10. Store the new range by pressing the OK button.
7. Press ► to select H Size then press ▲ or ▼ to adjust the horizontal coordinates over a range of -10 to +10. Store the new range by pressing the OK button.
8. Press the MENU button to remove the menu from the TV screen.






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## Teletext

**①** Most TV channels broadcast information via Teletext. The index page of the teletext service (usually page 100) gives you information on how to use the service. Please use a TV channel with a strong signal, otherwise there may be Teletext errors.

### Switching Teletext on and off



1. Select the TV channel which carries the teletext service you want to view.
2. Press the  button once to get Teletext only.
3. Press  twice for Mix mode.
4. Press  a third time to switch off Teletext.

### Selecting a Teletext page



Input three digits for the page number using the numbered buttons on the remote control. If you make a mistake, type in any three digits then re-enter the correct page number.

### Using Other Teletext Functions


#### Selecting the next or preceding page

Press the  or  buttons on the remote control to select the previous or next page.


#### Selecting a sub page

A teletext page may consist of several sub pages. In this case an information line is displayed, showing the number of subpages. It may take a few seconds for the information line to appear. Select the sub page by pressing  or .

#### To freeze a Teletext page

Press the  button to freeze the page. Press again to cancel the freeze.

#### Revealing the index page



Press the  button to reveal the index page (normally page 100).

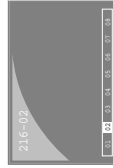
#### Using colour buttons to access pages (Fastext)

(only available if the TV station broadcasts Fastext signals)

When the colour coded menu appears at the bottom of a page, press a coloured button on the remote control (green, red, yellow or blue) to access the corresponding page.




#### Using the feature 'Page Catching'

1. Press the numbered buttons on the remote control to select a teletext page which has several page numbers on it (eg the index page).
2. Press the OK button.
3. Press  or  to select the desired page number then press the OK button. The requested page is displayed after some seconds.






## Teletext

### Using the Teletext menu







1. With Teletext switched on, press the MENU button on the remote control to display the menu on the TV screen.
2. Press  or  to select your chosen item on the screen then press  to display the relevant sub menu.
3. To remove the Teletext menu from the screen, press the MENU button.

#### Top/Bottom/Full

The Top/Bottom/Full sub menu allows you to enlarge different sections of the Teletext page. Press  to enlarge the upper half of the screen, Press  to enlarge the lower half. Press the OK button to restore the page to normal size. Press  to return to the Teletext menu screen.




#### Text Clear

Text Clear is a function that displays a TV channel while a Teletext page is being searched for.

1. Press the  button on the remote control twice to select full screen text.
2. Press the MENU button to display the 'Teletext' menu.
3. Press  or  to highlight 'Text Clear' and press  to select.
4. The current TV channel is displayed. Once the text page has been found a blue  symbol will appear in the top left hand corner of the screen.
5. Press the  button on the remote control to view the page.

#### Reveal




Some Teletext pages contain hidden information (eg for a quiz), which can be revealed.

1. In text mode press the MENU button on the remote control to access the 'Teletext' menu.
2. Press  or  to highlight 'Reveal' and press  to select. The hidden information is displayed on the screen.

#### Time Page\*

\*depending on availability of service.





Time Page allows a time-coded Teletext page (such as an alarm page), to be displayed at a set time.

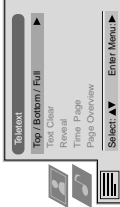
1. In Text mode press the MENU button on the remote control to access the 'Teletext' menu.
2. Press  or  to highlight 'Time Page' and press  to select. The 'Time Page' sub menu is displayed.
3. Enter the desired page number using the numbered buttons on the remote control.
4. Enter the desired time using the remote control.
5. Press OK to confirm the settings. The TV will exit Teletext mode and the time will be displayed in the top left hand corner of the screen. At the requested time the desired page is displayed.

#### Page Overview\*

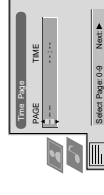
\*only available if TOP-Text is transmitted by the TV station.

In this menu the TOP-Text pages are divided into two columns, the first column showing 'blocks' of pages and the second showing 'groups' of pages.

1. Press  or  to select the first or second column.
2. Press  or  to select the relevant 'group' or 'block' of pages.
3. Press the OK button to display the chosen pages.



Top:  Bottom:  Full: OK



Specifications

**TV system**  
B/G/H, D/K

**Colour system**  
PAL, SECAM  
NTSC 3.58, 4.43 (only Video In)

**Channel coverage**  
See the 'Channel Display Table' below.

**Picture tube**  
FD Trinitron, Approx. 72cm (29 inches)

**Rear Terminals**  
Ⓔ1 / Ⓔ1 21-pin Euro connector (CENELEC standard) including audio/video input, RGB input, TV audio/video output.  
Ⓔ2 / Ⓔ2 21-pin Euro connector (CENELEC standard) including audio/video input, S-video input. Selectable audio/video output.  
Ⓔ3 / Ⓔ3 21-pin Euro connector (CENELEC standard) including audio/video input, S-video input, Monitor audio/video output.  
1 G51 RCA connectors, variable output for audio signals.  
R DDD

1f RF In

**Front Terminals**  
Ⓔ4 Video input - phono jacks  
Ⓔ4 Audio input - phono jacks  
Ⓔ4 S video input - 4 pin DIN  
Ⓔ Headphones jack - minijack stereo

**Sound output**  
Left/Right: 2x20W (Music Power)  
2x10W (RMS)  
Sub woofer: 30W (Music Power)  
15W (RMS)

**Power consumption**  
158W

**Dimensions (wvxhxd)**  
Approx. 765x653x570mm

**Weight**  
Approx. 59kg

**Accessories supplied**  
RM-893 remote control (1)  
IEC designated size AA batteries (2)

**Optional accessory**  
TV Stand: SU-29FQ1

**Other features**  
Flat display Trinitron tube, noise reduction, graphic equaliser, 2000 page TEXT memory, personal ID, sleep timer, NextView.

**Design and specifications are subject to change without notice.**

Channel Display Table

	Receivable Channels	Channel Displays
B/G/H	E2..12, 21..69	C02..C12, C21..69
KABEL-TV (1)	S1..S41	S01..S41
KABEL-TV (2)	S01..S05	S42..S46
	M1..M10	S01..S10
	U1..U10	S11..S20
ITALIEN	A, B..H, H1, H2	C13, C14, C20, C11, C12
D/K	R01..R12, R21..R69	C01..C12, C21..C69
	S01..S05	S42..S46

Troubleshooting

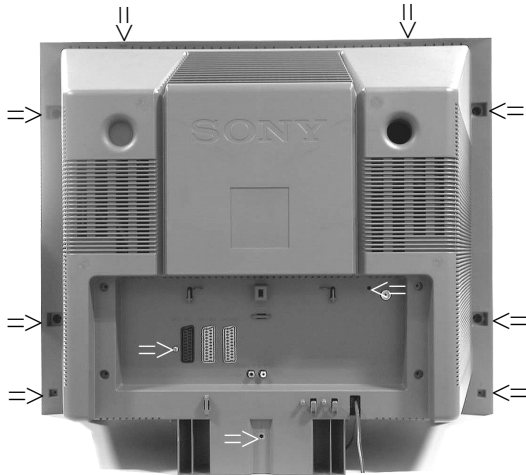
Here are some simple solutions to problems which may affect the picture and sound.

Problem	Suggested remedy
No picture (screen is dark), no sound.	<ul style="list-style-type: none"><li>Plug the TV in.</li><li>Press the Ⓔ button on the front of the TV.</li><li>If the Ⓔ indicator is on press the 1/Ⓔ button or a numbered button on the remote control.</li><li>Check the aerial connection.</li><li>Turn the TV off for 3 or 4 seconds and then turn it on again using the Ⓔ button on the front of the TV.</li></ul>
Poor or no picture (screen is dark), but good sound.	<ul style="list-style-type: none"><li>Using the MENU system, select the Picture Adjustment display. Adjust the brightness, picture and colour balance levels.</li><li>From the Picture Adjustment display select RESET to return to the factory settings.</li></ul>
Good picture, no sound.	<ul style="list-style-type: none"><li>Press the Ⓔ button on the remote control.</li><li>If Ⓔ is displayed on the screen, press the Ⓔ button on the remote control.</li></ul>
No colour on colour programmes.	<ul style="list-style-type: none"><li>Using the MENU system, select the Picture Adjustment display and adjust the colour setting.</li><li>From the Picture Adjustment display select RESET to return to the factory settings.</li></ul>
Distorted picture when changing programmes or selecting Teletext.	<ul style="list-style-type: none"><li>Turn off any equipment connected to the scart connectors on the rear of the TV.</li></ul>
Remote control does not function.	<ul style="list-style-type: none"><li>Replace the batteries.</li></ul>
The standby indicator Ⓔ on the TV flashes.	<ul style="list-style-type: none"><li>Contact your nearest Sony service centre.</li></ul>
Interference on picture from external equipment.	<ul style="list-style-type: none"><li>Reduce sharpness level.</li></ul>

• If you continue to have these problems, have your TV serviced by qualified personnel.  
• NEVER open the casing yourself.

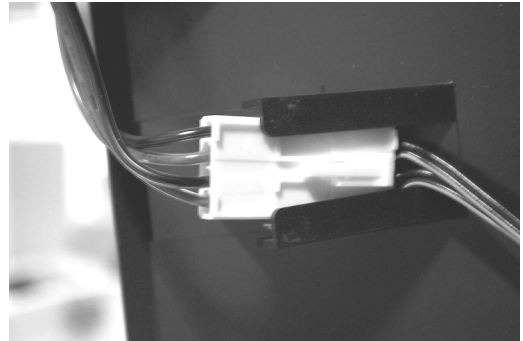
## SECTION 2 DISASSEMBLY

### 2-1. Rear Cover Removal



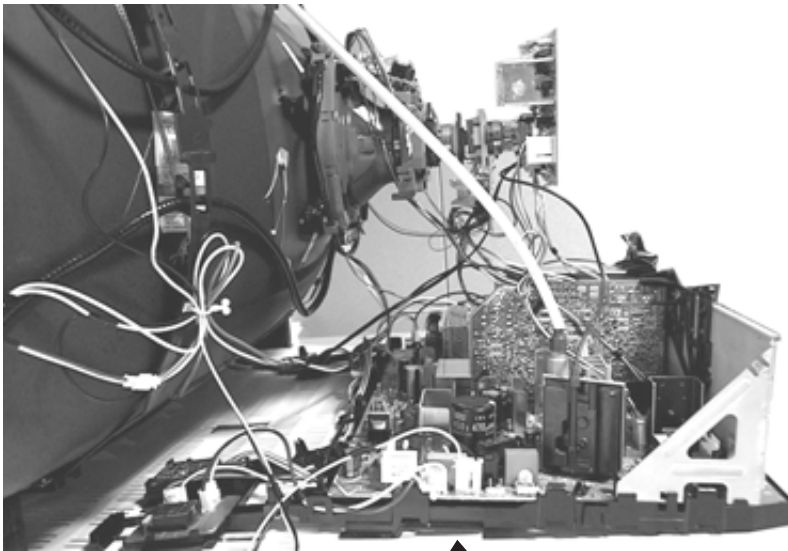
Remove the rear cover fixing screws indicated. Take care when removing the rear cover not to damage the speaker cables [Disconnect the speaker connector] as speakers are fitted inside the rear cover.

### 2-2. Speaker Connector Disconnection

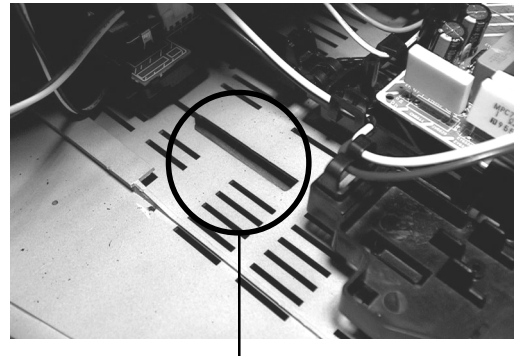


Before completely removing the rear cover disconnect the speaker connector which is located on the inside.

### 2-3. Chassis Removal and Refitting

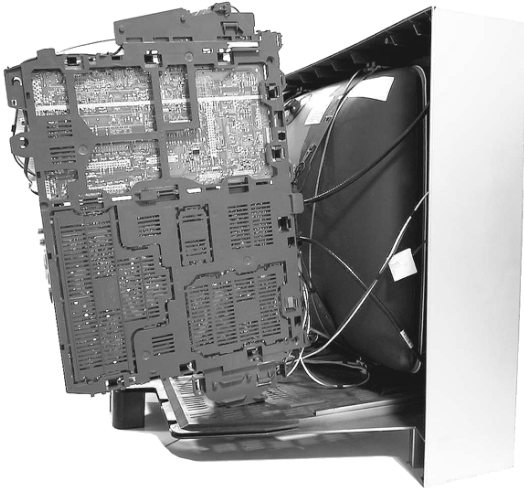


To remove lift the main bracket rear slightly and slide the chassis away from the beznet. Ensure that the interconnecting leads are released from their purse locks to prevent damage being caused.



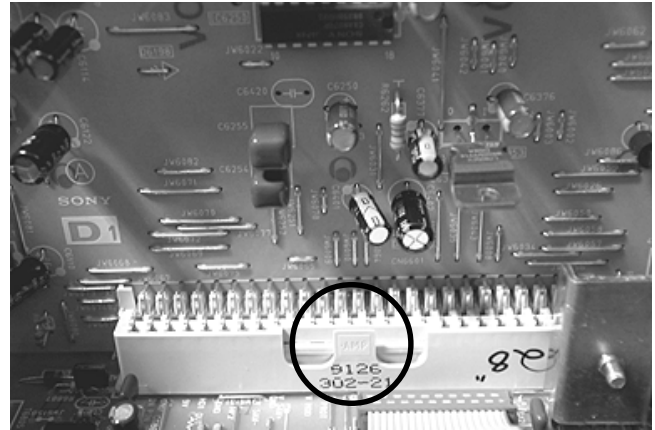
When refitting the chassis ensure that the main bracket is located in the beznet guide slots before sliding the chassis forwards. Refit the interconnecting leads in their respective purse locks.

#### 2-4. Service Position



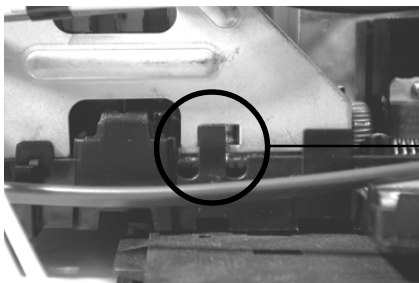
Position the PWB as indicated to access the solder side. To gain access to the D Board follow the instructions on page 19. [Removal and Replacement of the main bracket bottom plates ].

#### 2-5. D1 Board Removal



To remove the D1 Board release the clip circled and gently remove the board in a vertical direction.

#### 2-6. J Board Removal



Clip

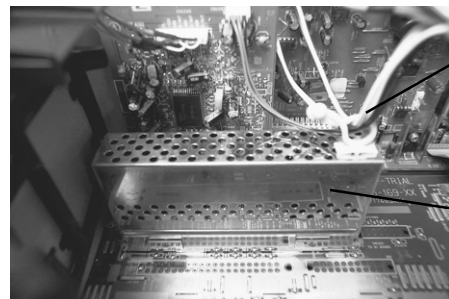
Release the two metal bracket support clips located on either side of the chassis. Tilt the bracket very slightly away from the shield case indicated. Release the J board board socket retaining clip and carefully lift the complete assembly vertically.



Shield case

#### 2-7. B2 Board Removal

Loosen the purse lock and release the cables indicated. Access to the B2 Board is possible after removal of the shield case. Remove the case and release the board socket clip as indicated in the D1 board removal. Remove the board in a vertical direction.



Cables

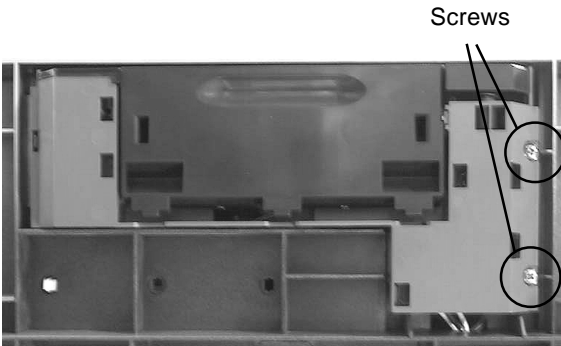
Shield case

#### Note :

Removal of the B2, E, and M1 printed circuit boards follows the same procedure of releasing the securing clips as indicated in the fig for D1 board removal. Take care not to apply to great a pressure to the clips as this may cause damage.

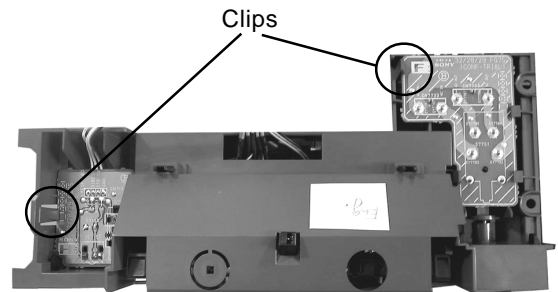
### 2-8. Front Control Module Removal

Remove the two screws fixing the user control module to the front underside of the set. The control module drops down to allow access to the boards.



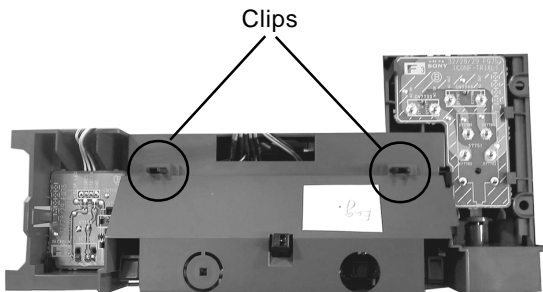
### 2-9. F3 and H6 Board Removal

To remove the F3 and H6 Boards release the clips circled and ease the boards gently away from the main support bracket.



### 2-10. H5 Board Removal

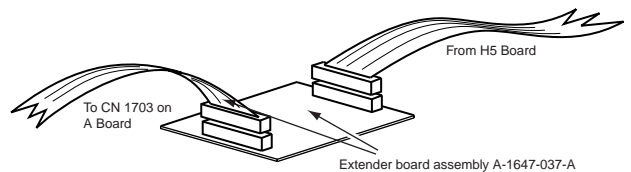
To remove the H5 Board, first remove the control door from bracket by releasing the clips circled and pushing them through the main support bracket.



Removal of H5 Board follows the same procedure as removal of the F3 and H6 Boards.

### 2-11. Service Connector for H5 Board

If there is a requirement to use the front video and audio sockets when the chassis is placed in its service position, it would be necessary to use an extender board and extension cable as indicated below.

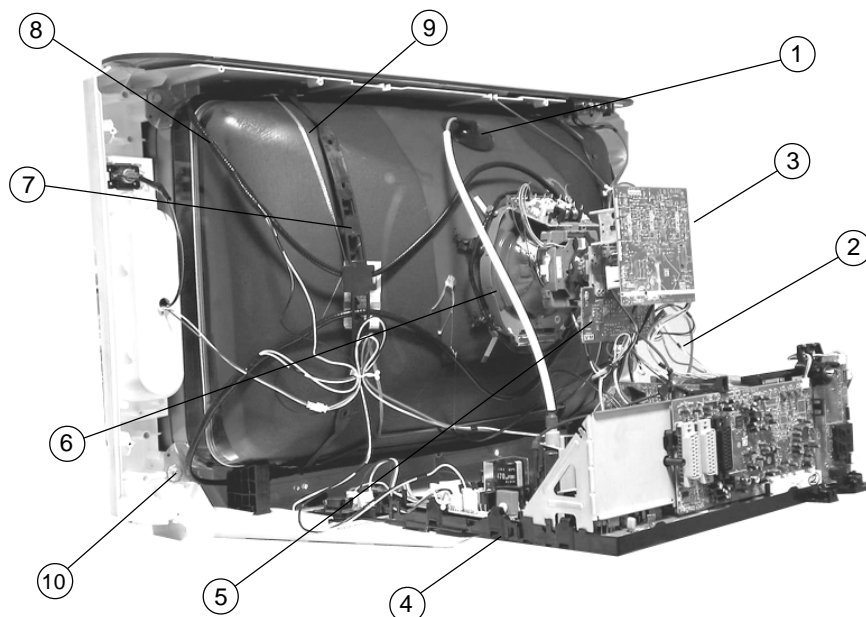
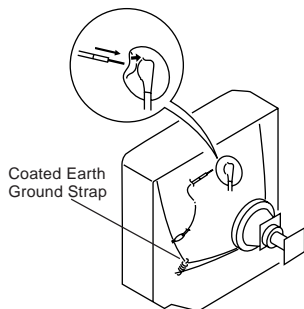


The Extender board and extension cable are available as a service part by ordering the part number as indicated.

## 2-12. Picture Tube Removal

### WARNING: BEFORE REMOVING THE ANODE CAP

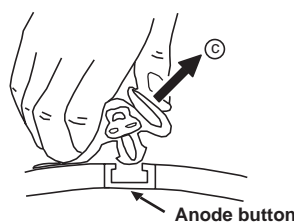
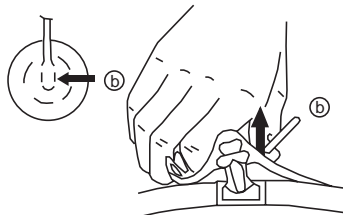
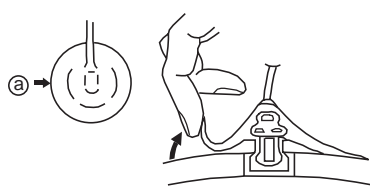
High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT **before** attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.



1. Discharge the anode of the CRT and remove the anode cap.
2. Unplug all interconnecting leads from the Deflection yoke, neck assy, degaussing coils and CRT grounding strap.
3. Remove the C Board from the CRT.
4. Remove the chassis assembly.
5. Loosen the Neck assembly fixing screw and remove.
6. Loosen the Deflection yoke fixing screw and remove.
7. Place the set with the CRT face down on a cushion and remove the Degaussing Coil holders.
8. Remove the Degaussing Coils.
9. Remove the CRT grounding strap and spring tentioners.
10. Unscrew the four CRT fixing screws [ located on each CRT corner ] and remove the CRT.  
[Take care not to handle the CRT by the neck.]

## Removal of the Anode-Cap

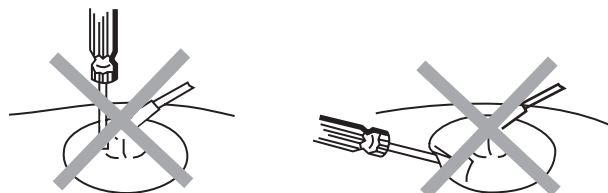
### \* REMOVING PROCEDURES.



- ① Turn up one side of the rubber cap in the direction indicated by the arrow ①
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ②
- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ③

### How to handle the Anode-Cap

1. To prevent damaging the surface of the anode-cap do not use sharp materials.
2. Do not apply too great a pressure on the rubber, as this may cause damage to the anode connector.
3. A metal fitting called a shatter hook terminal is fitted inside the rubber cap.
4. Do not turn the rubber foot over excessively, this may cause damage if the shatter hook sticks out.

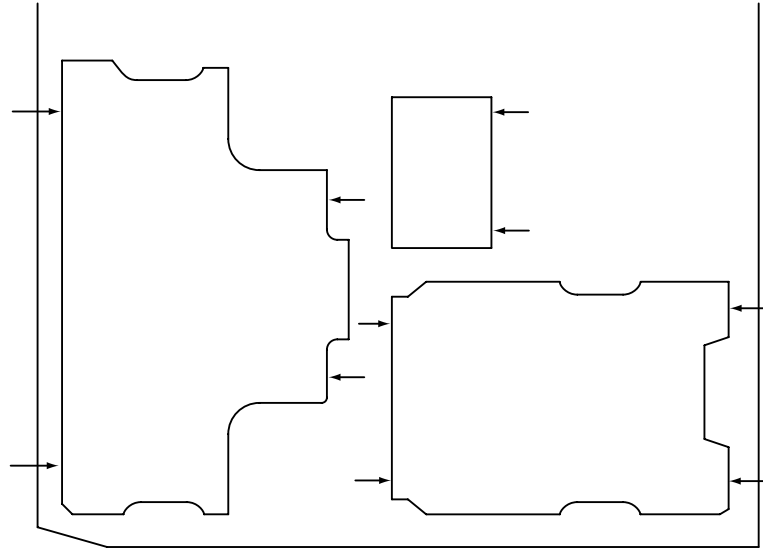


## REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET BOTTOM PLATES.

### (1) REMOVING THE PLATES

In the event of servicing being required to the solder side of the D Board printed wiring board, the bottom plates fitted to the main chassis bracket require to be removed. This is performed by cutting the gates with a sharp wire cutter at the locations indicated by the arrows.

**Note :** There are 3 plates fitted to the main bracket and secured by 3 gates.  
Only remove the necessary plate to gain access to the printed wiring board.

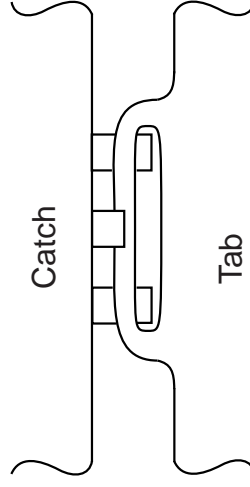


**⚠ For safety reasons, on no account should the plates be removed and not refitted after servicing.**

### (2) REFITTING THE PLATES

Because the plates differ in size it is important that the correct plates are refitted in their original location.

Please note that the plates need to be rotated 180 degrees from their cut position to allow the tabs to be fitted into their catch positions.





## SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to the following settings :

Contrast ..... normal

Brightness ..... normal

**Carry out the adjustments in the following order :**

- 3-1. Beam Landing.
- 3-2. Convergence.
- 3-3. Focus.
- 3-4. White Balance.

**Note :** Test equipment required.

1. Color bar/pattern generator.
2. Degausser.
3. Oscilloscope.
4. Digital multimeter.

### 3-1. Beam Landing

**Preparation :**

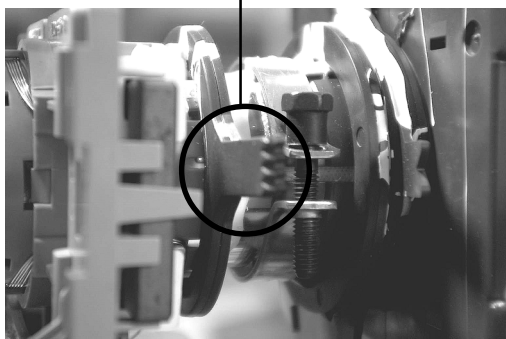
1. In order to reduce the influence of geomagnetism on the set's picture tube, face it in an easterly or westerly direction.
2. Switch on the TV set's power and degauss with a degausser.

#### (1) Adjustment of Correction Magnet for Y-Splitting Axis.

1. Input a crosshatch signal from the pattern generator.
2. Set the Picture control to minimum and confirm that the Brightness control is set to normal.
3. Position the neck assembly as indicated in Fig.3-2.
4. Loosen the deflection yoke fixing screw.
5. Move the deflection yoke as far forward as is possible.
6. Adjust the upper and lower pin symmetrically by opening or closing the Y-splitting axis correction magnets located on the neck assembly. [See Fig 3-3]
7. Return the deflection yoke to its original position and re-tighten its fixing screw.

**Fig.3-1**

Y-splitting axis correction magnet



**Caution :**

High voltages are present on the Deflection yoke terminals - take care when handling the Deflection yoke whilst carrying out adjustments.

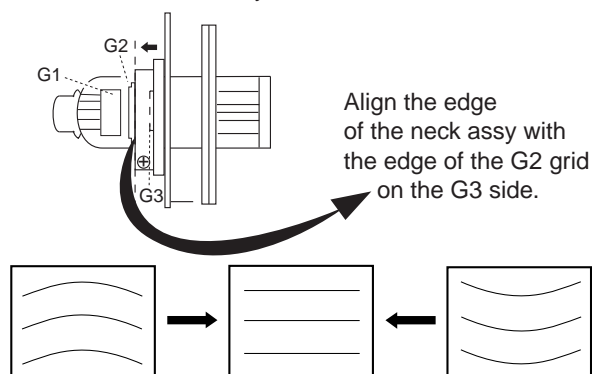
#### (2) Landing

**Note :** Before carrying out the following adjustments adjust the magnets as indicated below [See Fig.3-4].

1. Input a crosshatch signal from the signal generator.
2. Rough-adjust the focus and horizontal convergence.
3. Switch from the crosshatch pattern to an all-red pattern.
4. Move the deflection yoke backwards and adjust with the purity magnet so that the red is at the centre and it aligns symmetrically [See Fig.3-5].
5. Move the deflection yoke forward to the point where the entire screen just becomes red [Mark its position].
6. Move the deflection yoke further forward until the screen just changes colour at the edges. [Mark its position]
7. Position the deflection yoke between the two marks indicated above.
8. Input a crosshatch pattern from the pattern generator and rotate the deflection yoke so that the horizontal lines are parallel with the top and bottom of the screen.
9. When the position of the deflection yoke has been determined, fasten it with its fixing screw.
10. Switch the pattern generator to green then blue and confirm the purity.
11. If the beam does not land correctly in all the corners of the screen, use disk magnets to correct it. [Confirm the corner landing for green and blue]

**Fig.3-2**

Neck assy



**Fig.3-3**



Fig.3-4

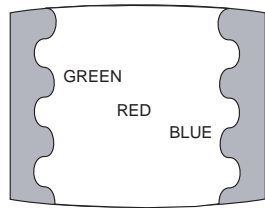
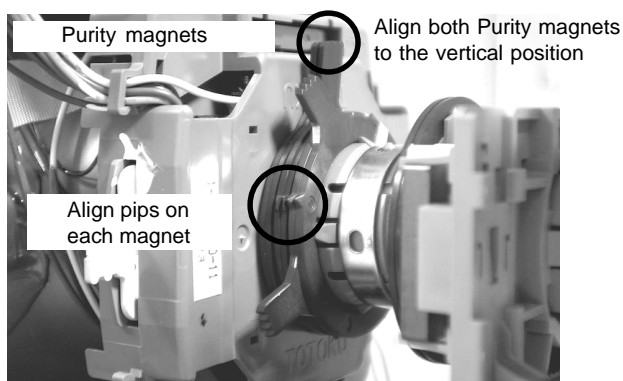
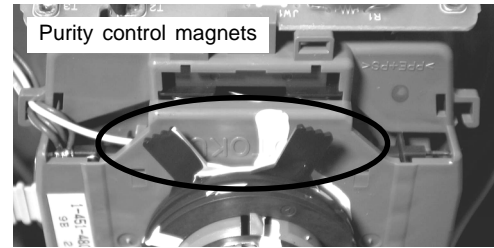
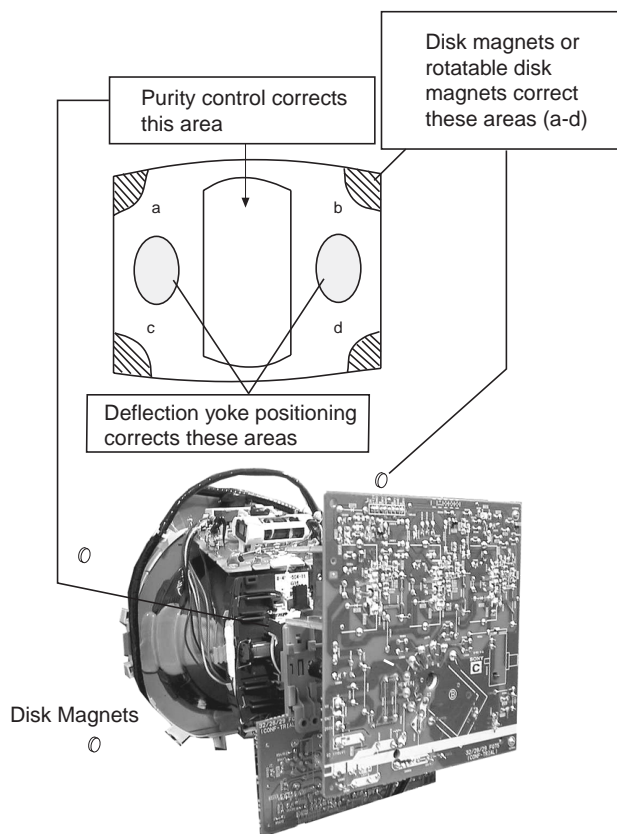


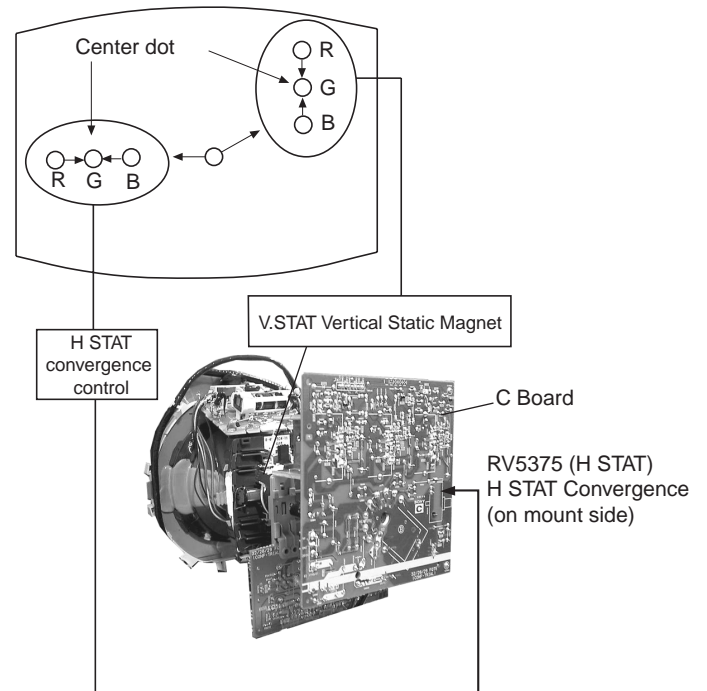
Fig.3-5



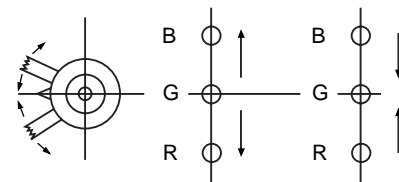
## 3-2. Convergence

### (1) Screen centre convergence [Static convergence]

1. Input a dot pattern signal from the pattern generator.
2. Normalize the picture setting.
3. [Moving vertically], adjust the V.STAT magnet so that the vertical red, green and blue dots coincide at the centre of the screen.



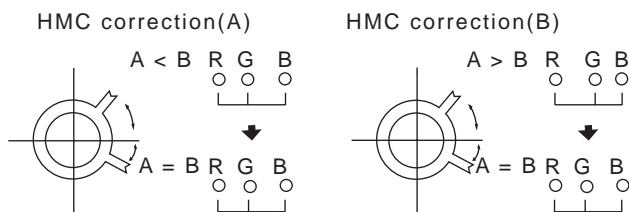
By opening or closing the V.STAT magnet, the red green and blue dots move in the direction indicated below.



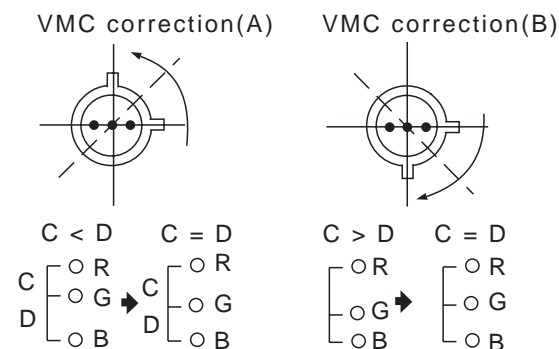
**Note:** Do not adjust the H.STAT by rotating the V.STAT magnets as this can affect the focus setting.

4. Correction for HMC [Horizontal mis-convergence] and VMC [Vertical mis-convergence] by using the BMC [Hexapole] magnet.

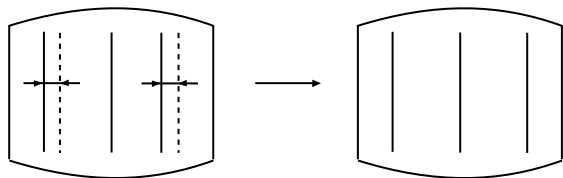
- a). HMC correction by BMC [Hexapole] magnet and movement of the electron beam.



- b). VMC correction by BMC [Hexapole] magnet and movement of the electron beam.

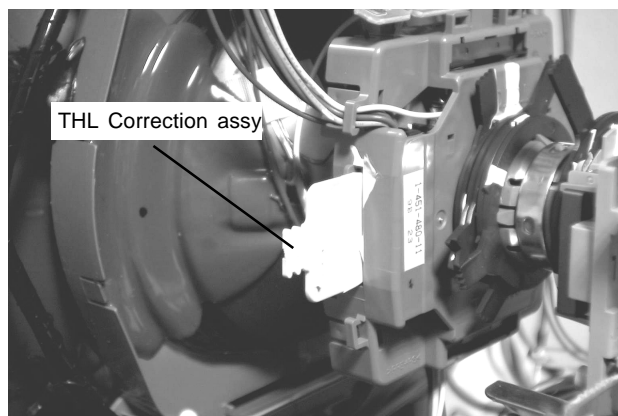


### HAMP Adjustment

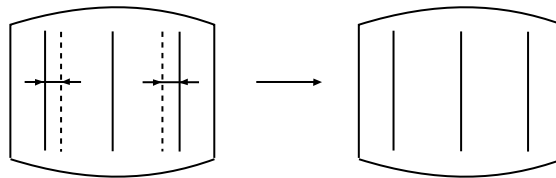


Adjust the HAMP using HAMPL and HAMPR registers in the Dynamic Convergence section of the service menu.

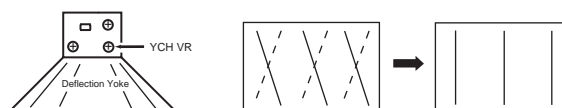
### HTIL Adjustment



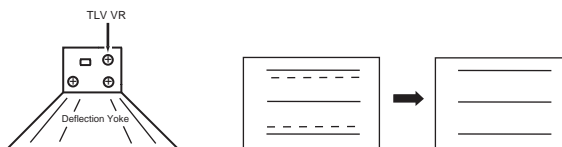
HTIL correction can be performed by adding a THL correction assembly to the Deflection yoke.



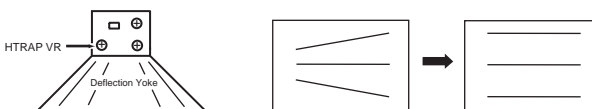
### YCH Adjustment



### TLV Adjustment

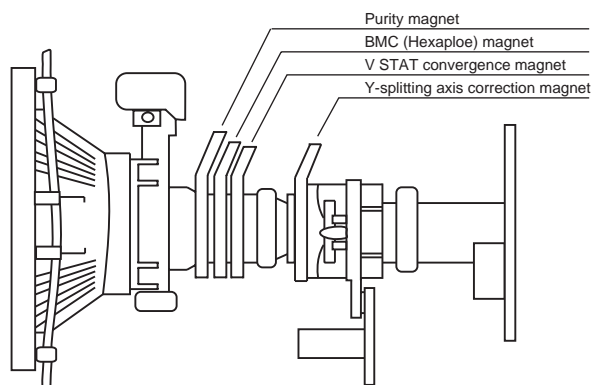


### H-TRAP Adjustment

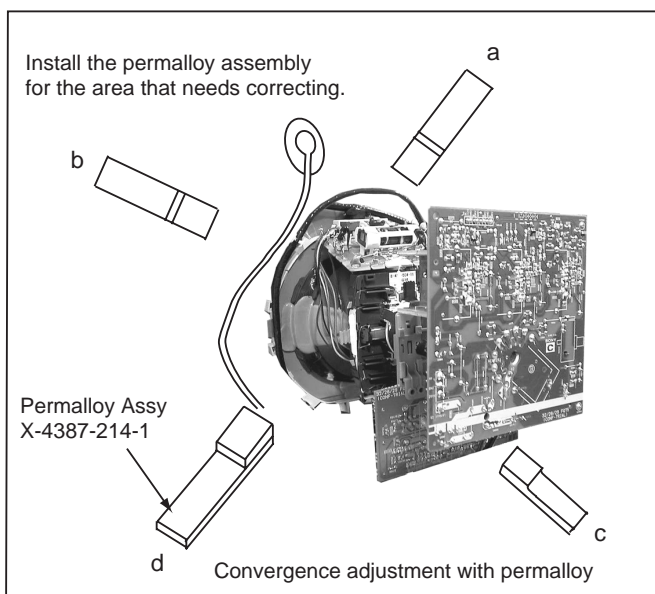
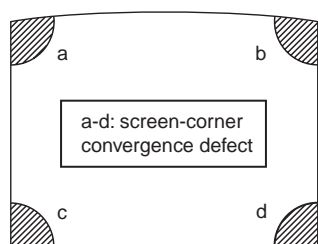


The H-TRAP should not be adjusted unless absolutely necessary as it affects the TLV settings.

## Layout of each control



**Note :** If you are unable to adjust the corner convergence properly, this can be corrected with the use of permalloy magnets.



## 3-3. Focus Adjustment

1. Receive a television broadcast signal.
2. Normalize the picture setting.
3. Adjust the focus control located on the flyback transformer to obtain the best focus at the centre of the screen.  
Bring only the centre area of the screen into focus, the magenta-tinge appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



## 3-4. Screen (G2), White Balance

[Adjustment in the service mode using the remote commander]

### G2 adjustment [RV5376]

1. Input a dot signal from the pattern generator.
2. Set the Picture, Brightness and Colour to minimum.
3. Apply 170V DC from an external power supply to the R, G and B cathodes of the CRT.
4. Whilst watching the picture, adjust the G2 control RV5376 [SCREEN] located on the C Board to the point just before the flyback return lines disappear.

### White balance adjustment for TV mode

1. Input an all-white signal from the pattern generator.
2. Enter into the 'Service Mode' by pressing 'TEST', 'TEST' and 'MENU' 'MENU' on the Service Commander.
3. Select 'Backend' from the on screen menu display and press 'OK'.
4. The 'Backend' menu will appear on the screen.[See Page 26]
5. Set the 'Contrast' to MAX.
6. Set the 'R-Drive' to 41.
7. Adjust the 'G-Drive' and the 'B-Drive' so that the white balance becomes optimum.
8. Press the 'OK' button to write the data for each item.
9. Set the 'Contrast' to MIN.
10. Set the 'R-Cutoff' to 31.
11. Adjust the 'G-Cutoff', and the 'B-Cutoff' with the left and right buttons on the remote commander so that the white balance becomes optimum.
12. Press the 'OK' button to write the data for each item.

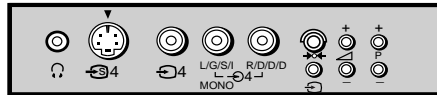
## SECTION 4 CIRCUIT ADJUSTMENTS

### 4-1. Electrical Adjustments

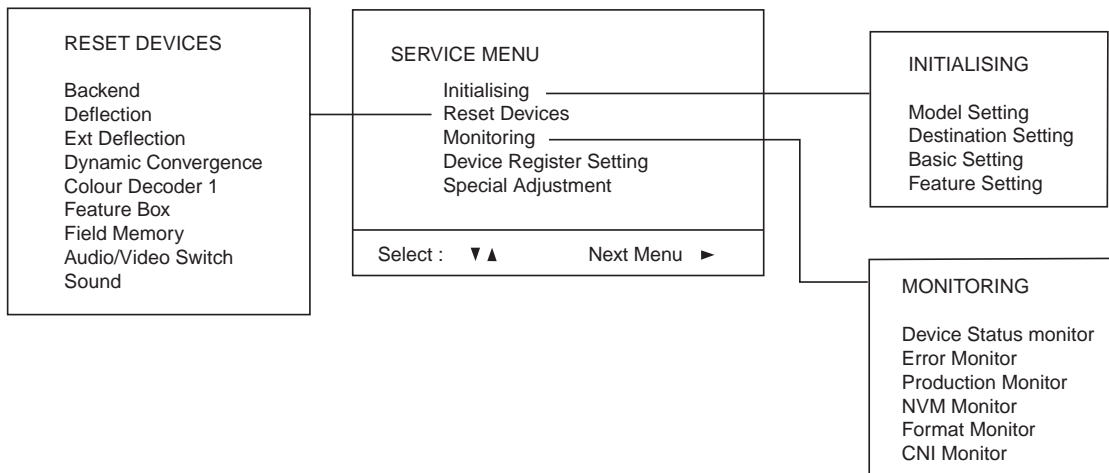
Service adjustments to this model can be performed using the supplied Remote Commander RM-893.

#### How to enter into the Service Mode

1. Turn on the main power switch of the set while pressing P + (plus) and P - (minus) buttons on the front drop down control panel.



2. 'TT' will appear in the upper right corner of the screen.
3. Press the 'MENU' button twice on the remote commander to obtain the service menu on the screen.



4. Push the joystick up or down on the remote commander to select the adjustment item.
5. Push the right button to proceed to the next menu.
6. If the required adjustment item is 'Deflection', push the down button to move to 'Deflection'.
7. Push the joystick to the right to enter into 'Deflection'.
8. Change the data in order to comply with each standard.

#### Note :

- Before performing any adjustments ensure that the correct model has been selected in the 'Model Setting' menu.
- After carrying out the service adjustments, to prevent the customer accessing the 'Service Menu' switch the TV set OFF and then ON.

## Initialising Menu

Initialising	
Model Setting	
Destination Setting	
Basic Setting	
Feature Setting	
Select :	Next menu:

### Model Setting

The menu contains a list with all the available models of this software to set up the TV set in an easy way. The selection of a model is setting data for its features and hardware resources which cannot be detected by the automatic power on H/W detection as well as a special *model byte* to get an unique model identification for models which cannot be differed by features and hardware resources (e.g. KV-28FC60 and KV-28FC60Z)

Before data is set, the user will be asked if he really wants to set a new model. If the user agrees, automatically the destination setting menu is shown.

Model Setting		
1	KV-28FC60	Reset
2	KV-28FC60Z	
3	KV-29FC60	
4	KV-32FC60	
5	KV-32FC60Z	
6	KV-34FC60	
7	KV-28FQ75	
8	KV-29FQ75	
9	KV-32FQ75	
10	KV-34FQ75	
11	KV-28FS70	
12	KV-32FS70	
13	KV-36FS70	
14	KV-28FX65	
15	KV-29FX65	
16	KV-32FX65	
17	KV-29FQ65	
BLACK = No Conformity GREEN = Compatible Model RED = Conformity for all data		

**Table.4-1**

#### Indication of Model Compatibility.

##### Black:

If any data does not match to specific model, the model name is displayed in black.

##### Green:

All data which is checked by model setting menu concurs to model except model byte.

##### Red:

All data which is checked by model setting menu concurs to model including model byte.

##### Note:

After selecting a model, it may be necessary to reset some devices to get the correct data. (Treble/Bass Offset of Sound, deflection adjustments, ...)

## Basic Setting

Basic setting				
No	Descr	Min	Max	Data
1	Sys.B/G	OFF	ON	ON
2	Sys.D/K	OFF	ON	ON
3	Sys.L	OFF	ON	OFF
4	Sys.I (UK)	OFF	ON	OFF
5	Sys.I (IRL)	OFF	ON	ON
6	TXTNat.option	1	4	3
7	16:9 CRT	OFF	ON	OFF
8	Sub-woofer	OFF	ON	ON
9	Auto stand-by	OFF	ON	ON
10	Comb-filter	OFF	ON	OFF
11	Auto YC det	OFF	ON	ON
12	Auto comb det	OFF	ON	OFF
13	AV2 Available	OFF	ON	ON
14	AV3 Available	OFF	ON	ON
15	AV4 Available	OFF	ON	ON
16	AV3 Fr & rear	OFF	ON	OFF
17	SECAM Tape	OFF	ON	OFF
18	AV1 Sound Mute	OFF	ON	OFF

**Table.4-2**

## Feature Setting

Feature setting				
No	Descr	Min	Max	Data
1	EPG	OFF	ON	ON

**Table.4-3**

## Device Register Setting

Backend
Deflection
Ext Deflection
Dynamic Convergence
Colour Decoder 1
Colour Decoder 2
Audio / Video Switch
Mid - X
External PLL Mid - X
Sound
Analog NR

**Table.4-4**

Audio / Video Switch					
No	Descr	Def	Min	Max	Data
1	CVOUT1	0	0	7	0
2	CVOUT2	2	0	7	2
3	GD1 SW	OFF	OFF	ON	OFF
4	GD2 SW	OFF	OFF	ON	OFF
5	YCOUT 1	0	0	7	0
6	YCOUT 2	1	0	7	1
7	LO0CTRL	OFF	OFF	ON	OFF
8	LO1CTRL	OFF	OFF	ON	OFF
9	AOUT 1	3	0	7	3
10	AOUT 2	3	0	7	3
11	AOUT 3MUTE	OFF	OFF	ON	OFF
12	ZCD SW	ON	OFF	ON	ON
13	AOUT 3	3	0	7	3
14	GROUP DEL	15	0	31	15
15	AOUT3 L/R	0	0	3	0
16	AOUT3VOLF	0	0	7	0
17	AOUT3VOLC	3	0	7	3

**Table.4-5**

Special Adjustment				
No	Descr	Min	Max	Data
1	RGB level	0	7	0
2	RGB Gain	0	31	8
3	RGB PatLevel	0	7	0
4	RGB Patgain	0	31	15
5	Extra Fw	0	255	255
6	EPG Chks Check	OFF	ON	ON
7	Slicer High	OFF	ON	ON
8	FCW Wide	OFF	ON	ON
9	Mpeg NR	OFF	ON	OFF
10	Notch Filter	OFF	ON	OFF
11	NLD Step	-7	0	0
12	PKD Step	-15	0	0
13	CRD Step	0	15	7
14	SHP Step	-10	0	-3
15	COL Step	-10	0	-1
16	SHP gain Step	-5	0	0
17	VM level Step	-3	0	0
18	NTSC Auto YC AV2	OFF	ON	OFF
19	NTSC Auto YC AV3	OFF	ON	OFF
20	RGB Disable	OFF	ON	OFF
21	Intern GD	OFF	ON	ON
22	AV2 YC Mix Out	OFF	ON	ON

**Table.4-6**

Backend					
No	Descr	Def	Min	Max	Data
1	R-on	ON	OFF	ON	ON
2	G-on	ON	OFF	ON	ON
3	B-on	ON	OFF	ON	ON
4	D-col	OFF	OFF	ON	OFF
5	Color-axis	2	0	3	2
6	Contrast	40	0	63	40
7	Limit-Luv	3	0	3	3
8	Hue	32	0	63	32
9	Colour	31	0	63	31
10	CTI-Level	2	0	3	2
11	Brightness	31	0	63	31
12	Gamma	3	0	3	3
13	Sharpness	30	0	63	30
14	R-Drive	41	0	63	41
15	G-Drive	41	0	63	30
16	B-Drive	41	0	63	23
17	ABL-Mode	0	0	3	0
18	Sub Bright	31	0	63	22
19	VM-Level	2	0	3	1
20	R-Cutoff	31	0	63	31
21	Preover	2	0	3	2
22	G-Cutoff	31	0	63	23
23	DPIC-Level	1	0	3	1
24	B-Cutoff	31	0	63	29
25	DC-Tran	0	0	3	0
26	Sub-Cont	7	0	15	9
27	LRGB2-Lvl	8	0	15	0
28	P-Abl	15	0	15	15
29	Sharp.Fo	ON	OFF	ON	ON
30	Aging-W	OFF	OFF	ON	OFF
31	Aging-B	OFF	OFF	ON	OFF
32	CB-offset1	11	0	15	11
33	CR-offset1	11	0	15	11
34	CB-offset2	7	0	15	7
35	CR-offset2	7	0	15	7
36	Sub Color	0	-8	8	-2

**Table.4-7**

Colour Decoder 1					
No	Descr	Def	Min	Max	Data
1	Tint	31	0	63	31
2	P/N Gw	OFF	OFF	ON	OFF
3	P/N ID	OFF	OFF	ON	OFF
4	Sub Colour	7	0	15	7
5	Sub Contr	8	0	15	8
6	Sharp FO	1	0	3	1
7	Sharp EQ	2	0	3	2
8	Sharp Gain	8	0	15	8
9	Y-Out Lev	35	0	63	35
10	BS Point	0	0	3	0
11	C-Out Lev	45	0	63	45
12	DC Rest	0	0	3	0
13	BPF FO	2	0	3	2
14	BPF Q	1	0	3	1
15	Filter Sw	OFF	OFF	ON	OFF

**Table.4-8**

Colour Decoder 1 (cont)					
No	Descr	Def	Min	Max	Data
16	C-Trap Sw	0	0	1	0
17	S-D Trap	ON	OFF	ON	ON
18	LPF	ON	OFF	ON	ON
19	Y-DL	8	0	10	8
20	N-Comb	ON	OFF	ON	ON
21	Video Sel	0	0	15	0
22	RGB Sel	0	0	3	0
23	Halftone	OFF	OFF	ON	OFF
24	CrOFF.1	7	0	15	7
25	CbOFF.1	7	0	15	7
26	CrOFF.2	7	0	15	7
27	CbOFF.2	7	0	15	7
28	VCD Freq	3	0	7	3
29	VCD Mode	0	0	3	1
30	AFC SENS	1	0	3	1
31	MVM	OFF	OFF	ON	OFF
32	S-R-Y Adj	6	0	15	6
33	S-B-Y Adj	4	0	15	4
34	BELL/HPF	2	0	3	2
35	BELL FO	OFF	OFF	ON	OFF
36	S-GP	0	0	3	0
37	S ID	OFF	OFF	ON	OFF
38	RGB1 ENB	OFF	OFF	ON	OFF
39	HS-PH	1	0	1	0
40	S/N RATIO	3	0	3	3

**Table.4-9**

Dynamic Convergence					
No	Descr	Def	Min	Max	Data
1	Range	63	0	63	63
2	V Stat	36	0	63	17
3	H Stat	33	0	63	31
4	H amp L	37	0	63	33
5	H amp R	36	0	63	33
6	Up Y	31	0	63	31
7	Low Y	33	0	63	31
8	Y up L	30	0	63	45
9	Y up R	30	0	63	31
10	Y low L	31	0	63	31
11	Y low R	30	0	63	45
12	Mbow Up L	31	0	63	31
13	Mbow Up R	32	0	63	31
14	Mbow Low L	32	0	63	31
15	Mbow Low R	32	0	63	31
16	T Cor PCtrl	OFF	OFF	ON	OFF
17	Top Cor Pin	31	0	63	31
18	B Cor PCtrl	OFF	OFF	ON	OFF
19	Bot Cor Pin	43	0	63	31

**Table.4-10**

Sound					
No	Descr	Def	Min	Max	Data
1	Ref.Level	40	0	20	40
2	Auto-gain	ON	OFF	ON	ON
3	Ana-in	0	0	1	0
4	Carr-mute	ON	OFF	ON	ON
5	Clock out	ON	OFF	ON	ON
6	AM-gain	ON	OFF	ON	ON
7	Clip mode	0	0	2	0
8	SCART1 Vol	79	0	127	79
9	SCART2 Vol	79	0	127	79
10	SCART Pr	27	0	127	27
11	I2S1-pr	16	0	127	16
12	I2S2-pr	16	0	127	16
13	FM pr	27	0	127	27
14	BG Nic-pr	53	0	127	53
15	L Nic-pr	59	0	127	59
16	DK Nic-pr	53	0	127	53
17	I Nic-pr	97	0	127	97
18	Irl Nic-pr	97	0	127	97
19	AVC-Decay	2	0	8	2
20	SubW-vol	0	-127	0	0
21	SubW-freq	20	5	40	20
22	SubW-HPass	OFF	OFF	ON	OFF
23	Spat-stre	+127	0	-1	127
24	Spat-Coeff	0	0	8	0
25	Bass offs	0	-3	+3	0
26	Treble offs	0	-3	+3	0
27	Loudn offs	0	0	9	0
28	Hp-Voloffs	-2	-5	+5	-2
29	M-S Limit	+30	-128	+127	30
30	M-B Limit	-30	-128	+127	-30
31	S-M Limit	+12	-128	+127	12
32	S-B Limit	-20	-128	+127	-20
33	B-M Limit	-12	-128	+127	-12
34	B-S Limit	+20	-128	+127	20
35	Err.Max	40	0	255	40
36	Err.Min	18	0	255	18
37	Vol.Offs	0	-6	0	-4

**Table.4-11**

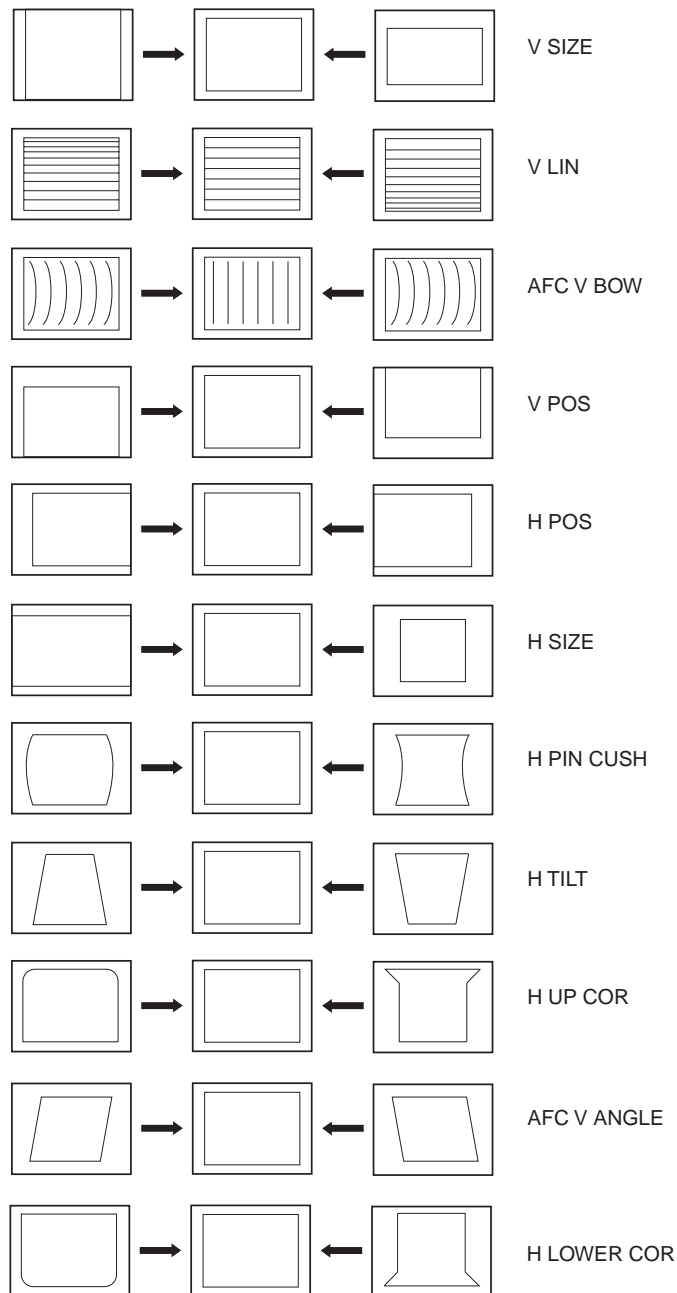
Ext. Deflection					
No	Descr	Def	Min	Max	Data
1	Linearity	127	0	255	127
2	H Centre	31	0	63	31
3	H Trap	31	0	63	31
4	Rotation	0	0	255	0
5	FocusPhase	127	0	255	127

**Table.4-12**



Deflection					
No	Descr	Def	Min	Max	Data
1	V-Size	31	0	63	35
2	V-Position	31	0	63	30
3	V-Comp	1	0	3	0
4	V-Linear	7	0	15	7
5	S-Corr	7	0	15	7
6	H-Size	31	0	63	27
7	EW-DC	OFF	OFF	ON	OFF
8	Akb Tim2	OFF	OFF	ON	OFF
9	Pin-Amp	31	0	63	29
10	H-Comp	0	0	3	0
11	Up-Cpin	31	0	63	35
12	M-Pin	2	0	3	2
13	Lo-CPin	31	0	63	34
14	Trapezium	7	0	15	6
15	H-Position	31	0	63	25
16	VblKw	0	0	3	0
17	AFC-Bow	7	0	15	7
18	AFC-Angle	7	0	15	10
19	Left-Blk	38	0	63	52
20	Right-Blk	12	0	63	11
21	V-Freerun	0	0	3	0
22	V-Aspect	47	0	63	47
23	Zoom-Sw	OFF	OFF	ON	OFF
24	U-Scan	OFF	OFF	ON	OFF
25	V-Scroll	31	0	63	31
26	Akb-Tim	0	0	3	2
27	Up-Vlin	0	0	15	0
28	Lo-Vlin	0	0	15	0

Table.4-13



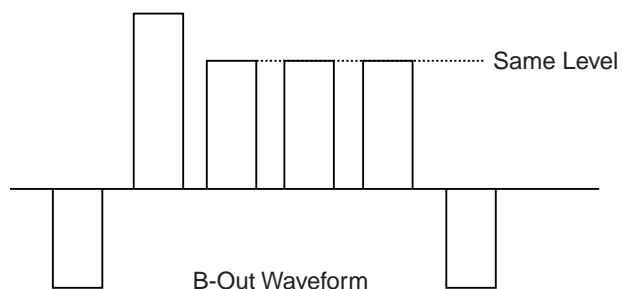
### Deflection System Adjustment

1. Enter into the service mode and select 'Deflection' from the menu. The 'Deflection' adjustment menu will be displayed.
2. Select and adjust each item to obtain the optimum image.

### 4-2. Volume Electrical Adjustments

#### Sub Colour Adjustment

1. Input a PAL colour bar signal.
2. Connect an oscilloscope to CN5400 pin 5 located on the C Board.
3. Enter into the 'Service Mode'.
4. Choose 'Backend' from the menu.
5. Adjust 'Sub Colour' data so that the right sides of the waveform are of equal height.





### 4-3. TEST MODE 2:

Is available by pressing the 'TEST' button twice, OSD 'TT' appears. The functions described below are available by selecting the two numbers. To release the 'Test mode 2', press 0, 10, 20 ... twice or switch the TV set into Stand-by mode. Pressing the two Local Control buttons (+ and -) during power ON will also switch into 'TT' mode.

In 'TT' mode, it is possible to remove the Menu from the screen by pressing the Speaker Off button once. Pressing the Speaker OFF button a second time will cause the Menu to reappear. The function is kept even when the menu is not displayed on screen !!.

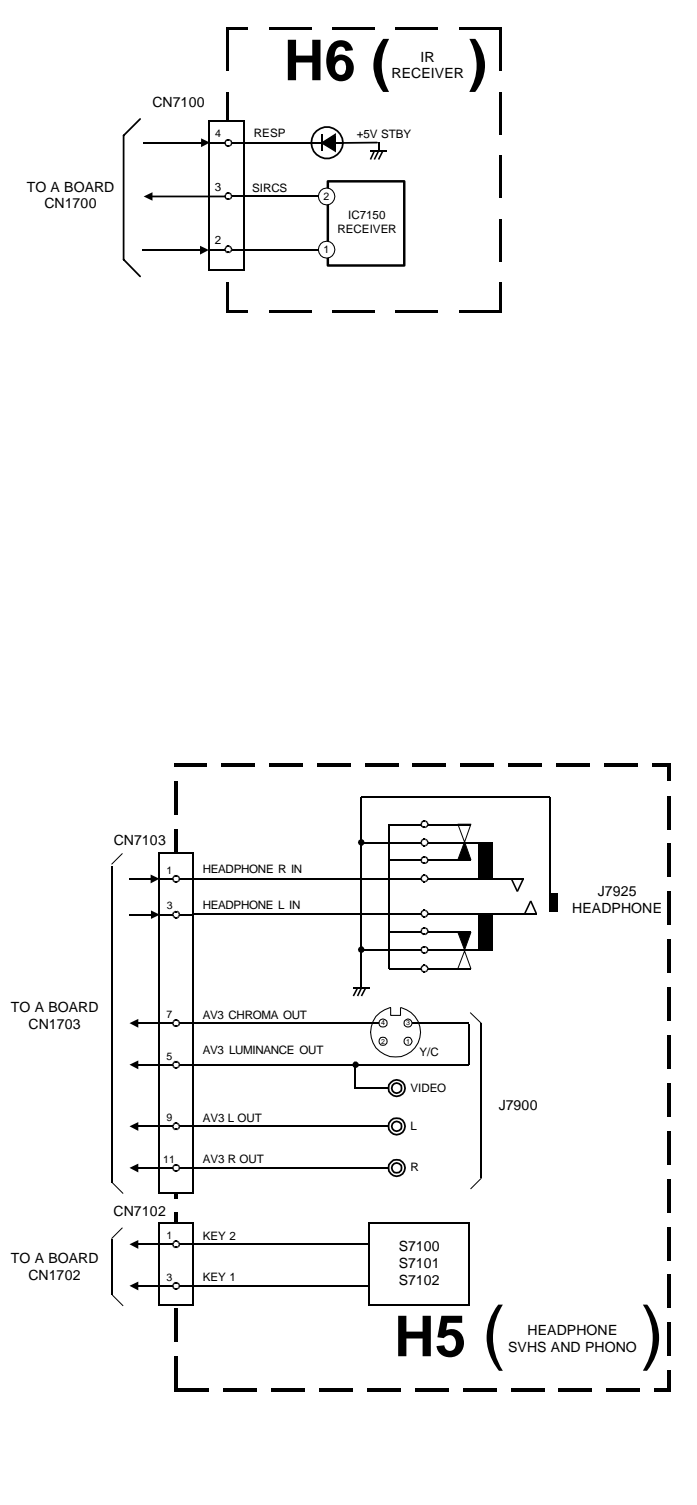
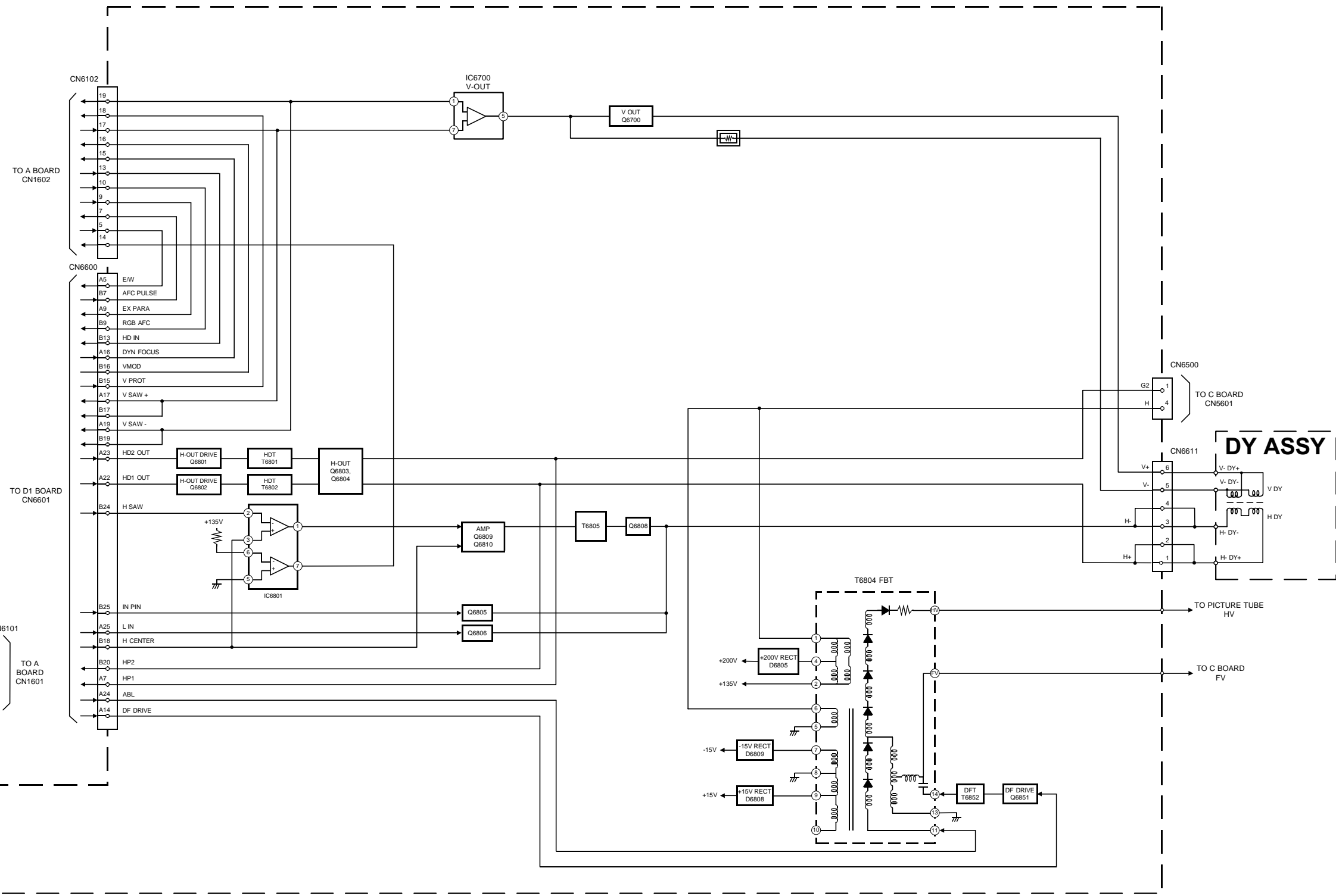
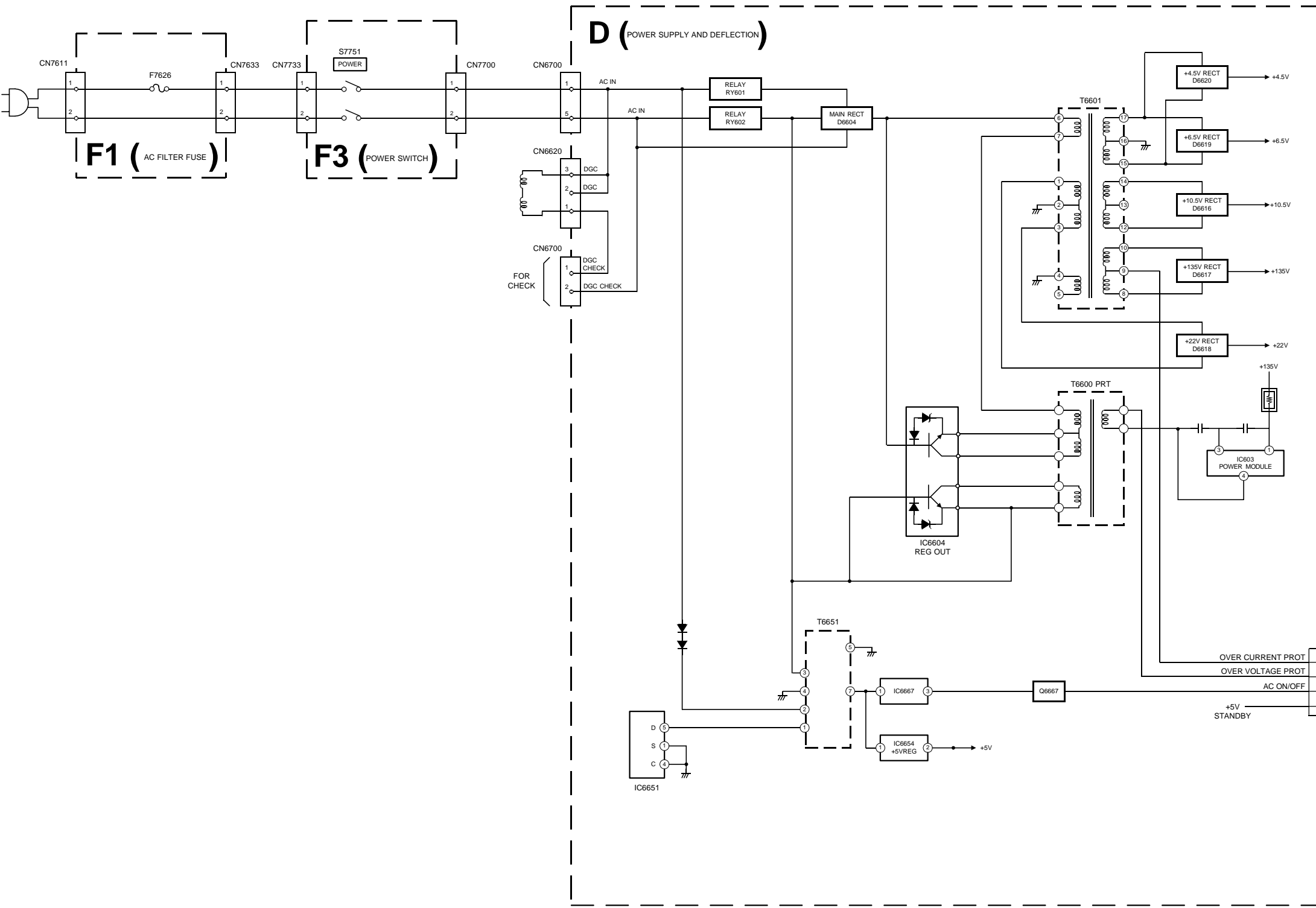
00	'TT' mode off
01	Picture maximum
02	Picture minimum
03	Set speaker/headphone Volume to 30%
04	Set speaker/headphone Volume to 50%
05	Set speaker/headphone Volume to 65%
06	Set speaker/headphone Volume to 80%
07	Ageing mode
08	Shipping Condition
10	No function
11	Sub picture adjustment
12	Sub colour adjustment
13	Display software version and TV set configuration
14	No function
15	Picture Rotation - Auto Function -5 -> 0 -> + 5
16	Picture level 50%
17	Audio mute on
18	No function
19	Sub brightness adjustment
20	No function
21	Destination A includes text settings, display TV status
22	Destination L includes text settings, display TV status
23	Destination E includes text settings, display TV status
24	Destination U includes text settings, display TV status
25	Destination D includes text settings, display TV status
26	Destination B includes text settings, display TV status
27	Destination K includes text settings, display TV status
28	Destination R includes text settings, display TV status
30	No function
31	Geometry Adjustment 1
32	Geometry Adjustment 2
33	Error monitor
34	No function
35	CRT 4:3 <-> 16:9 ; Display TV status
36	Line 23 detection switch
37	Velocity Modulation (VM) test
38	No function
39	No function
40	No function
41	Screen mode check
42	Re-initialise geometry
43	No function
44	No function
45	No function
46	Reserved for dealer commander
47	Re-initialise NVM
48	Set NVM as non virgin
49	Set NVM as virgin
50	No function
51	Set Dolby volume to 90%
52	Dolby on left speaker only
53	Dolby on right speaker only

54	Dolby on left centre only
55	Dolby on surround speaker only
56	No function
57	No function
58	No function
59	No function
60	No function
61	Service mode
62	Production mode
63	Copy the picture reset data from ROM into the picture reset location of NVM
64	Copy the actual adj picture data from NVM to reset location of NVM
65	Reset error codes
66	No function
67	No function
68	Ignore error on
69	Ignore errors off
70	No function
71	No function
72	No function
73	Clear all programmes except 1-5 and all station labels
74	Adjustment for PIN Amp/Upper Corner Pin for EPG
75	Adjustment for Lower Corner Pin/ Trapezoid for EPG
76	No function
77	No function
78	No video blanking
79	Reset NVM Addresses 0EFF - 0FFF
80	No function
81	Smart Link test signal on AV2 Pin 10.
82	Horizontal centre adjustment for MID-X input main picture. Adjustment is done with left and right joystick button, released by "TV" or "OK" buttons.
83	No function
86	
87	Personal ID reset
88	Parental Lock off
89	OSD mute on/off
90	No function
91	No function
92	No function
93	Reserved for software group only
94	No function
95	Dolby Low Pass Filter ON in surround channel
96	Dolby Low Pass Filter OFF in surround channel
97	No action
98	No action
99	No function

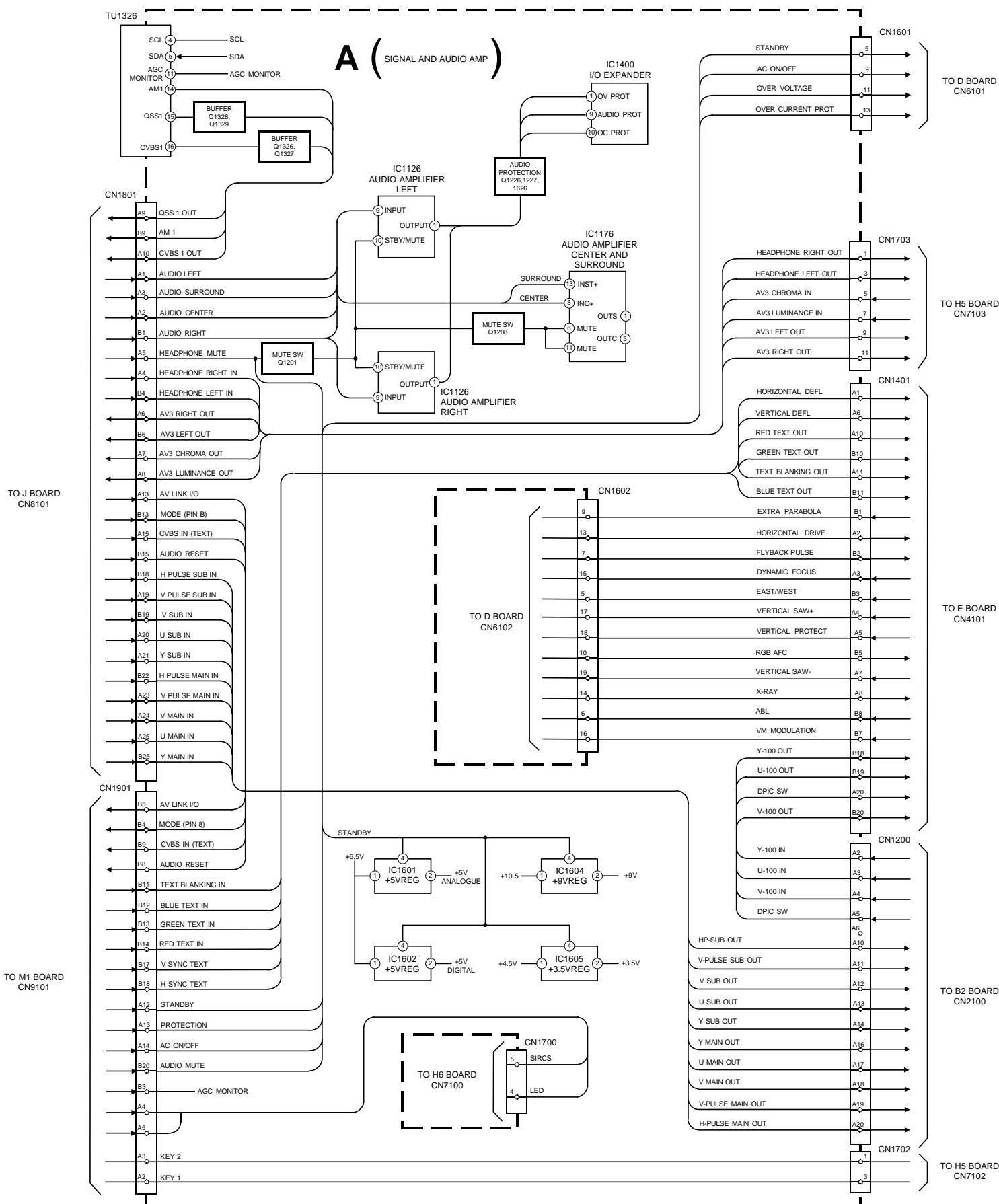
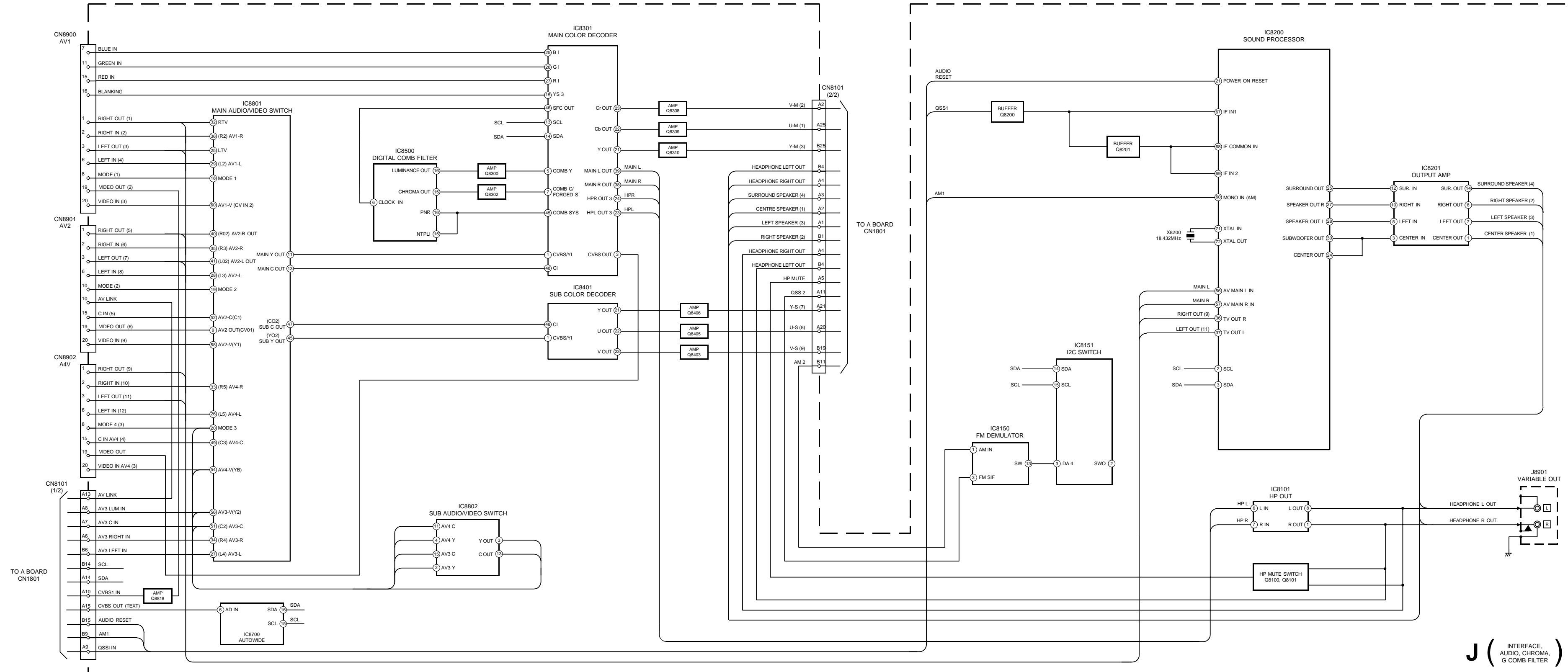
## Memo

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

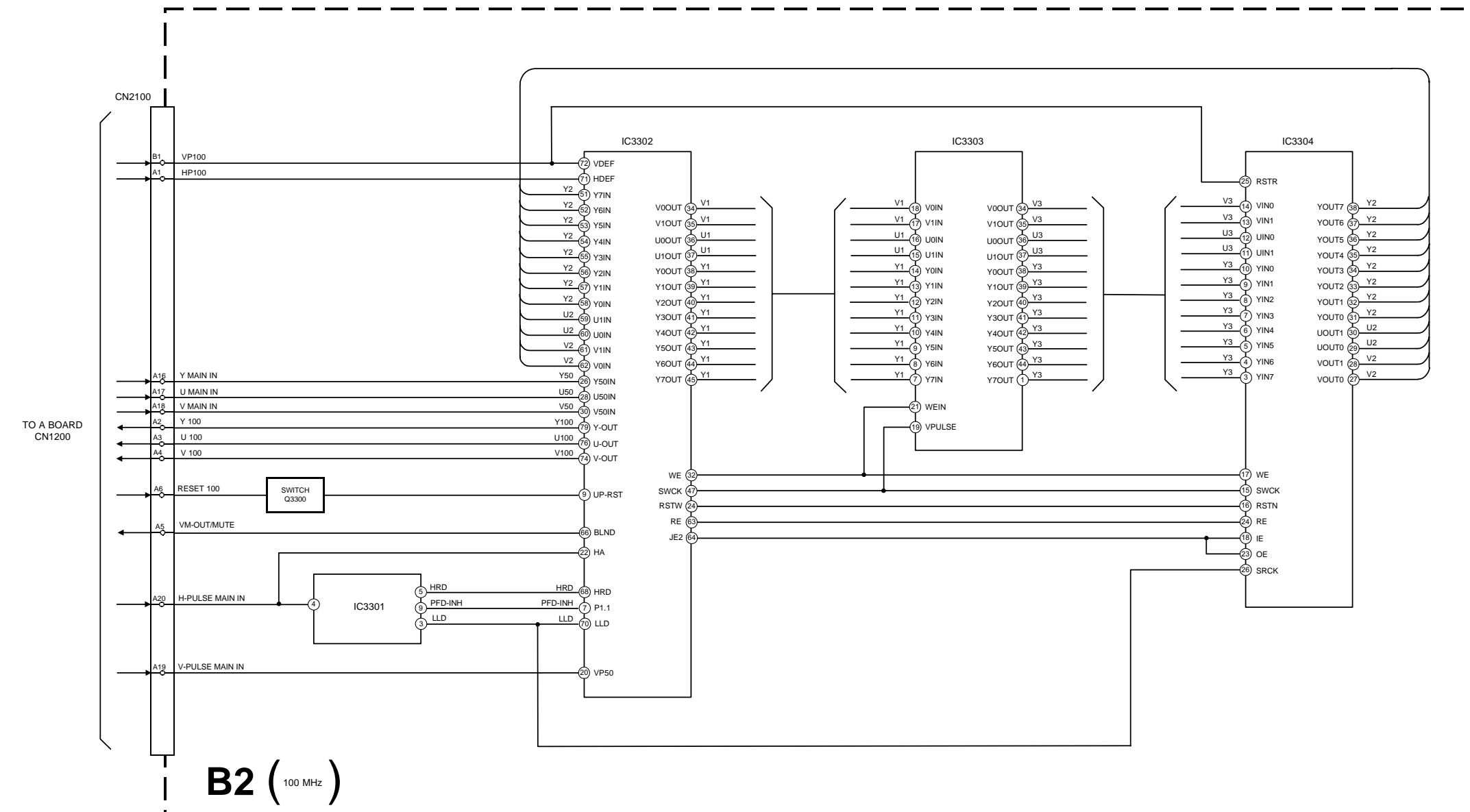
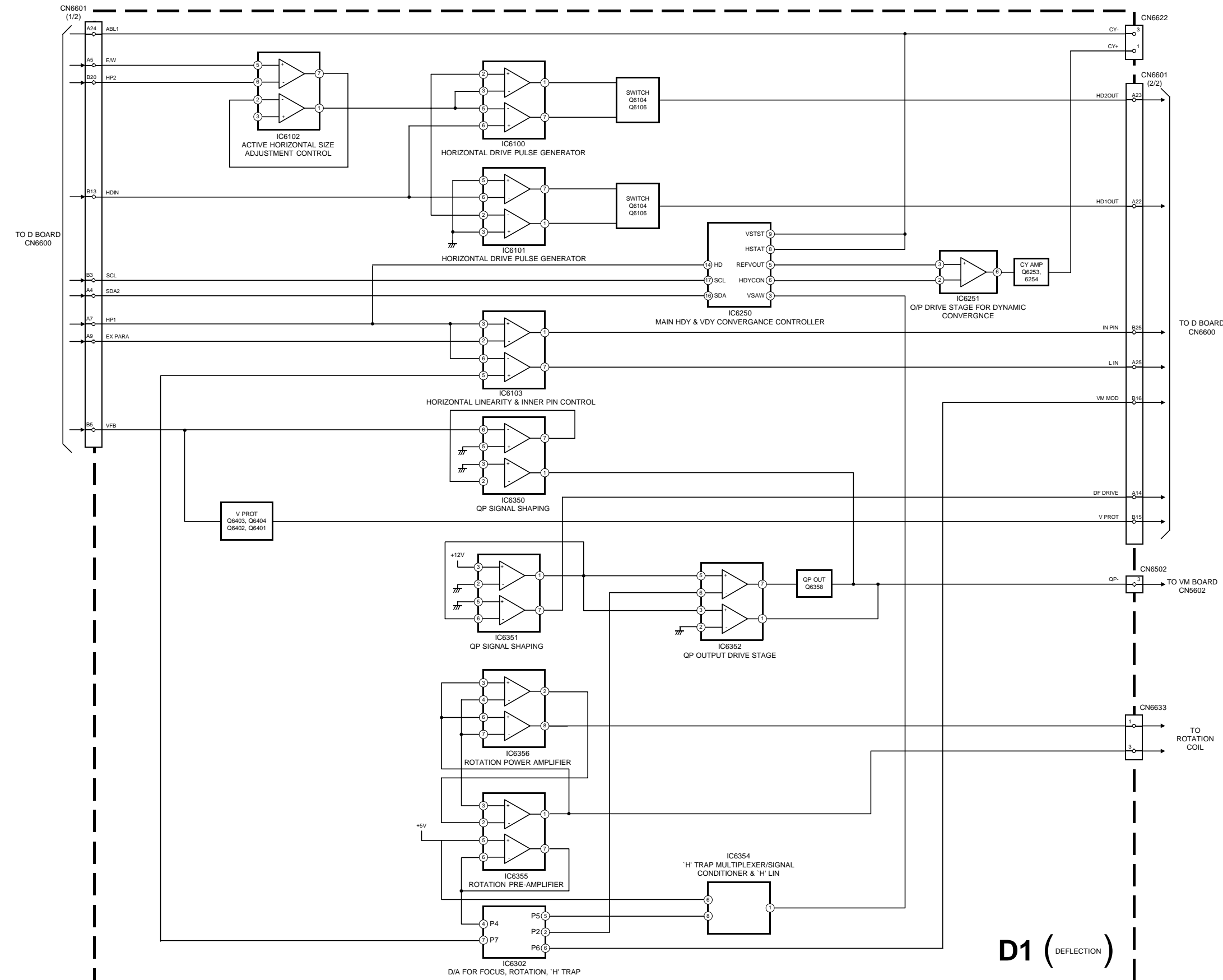
5-1. BLOCK DIAGRAMS (1)



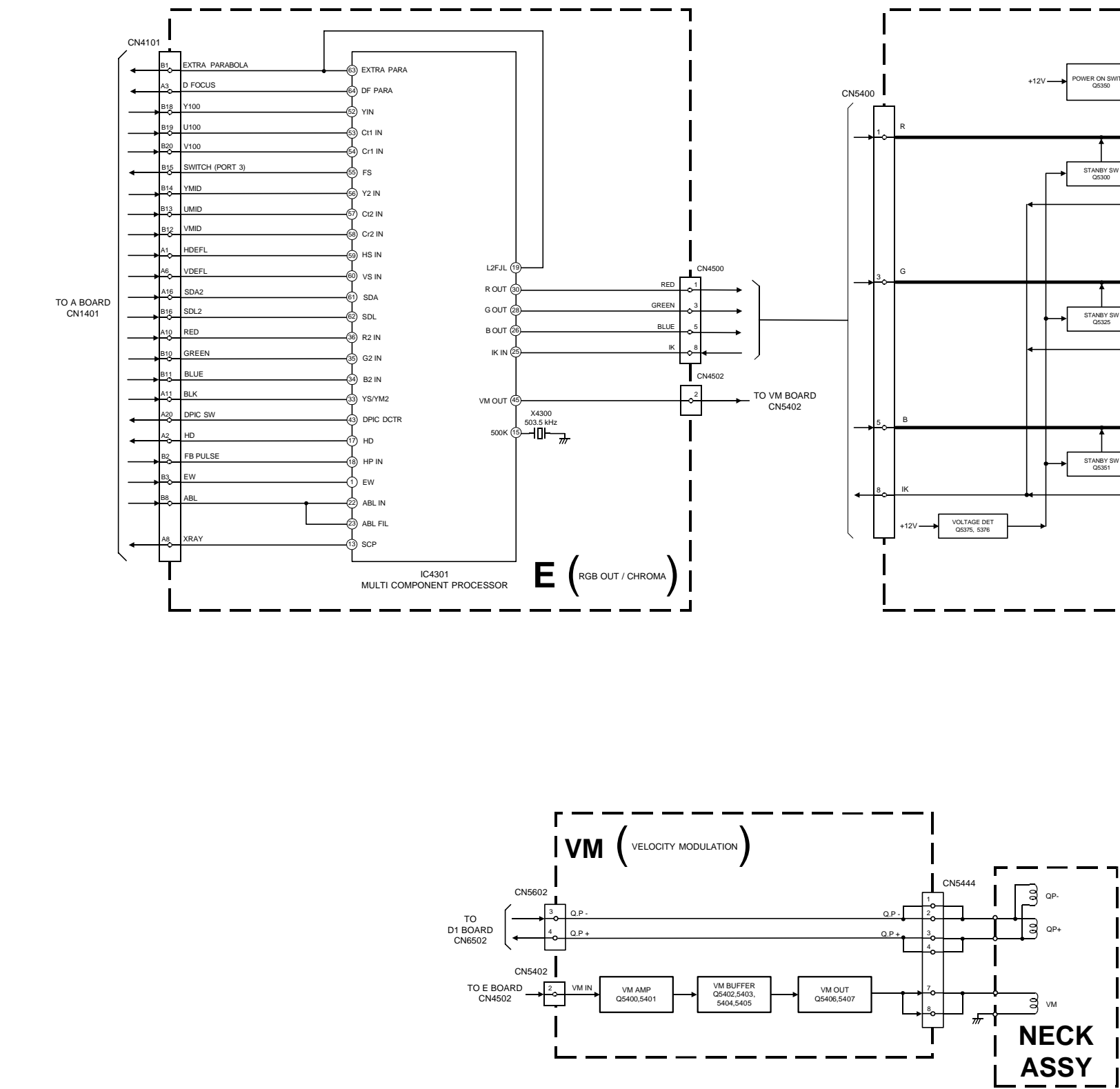
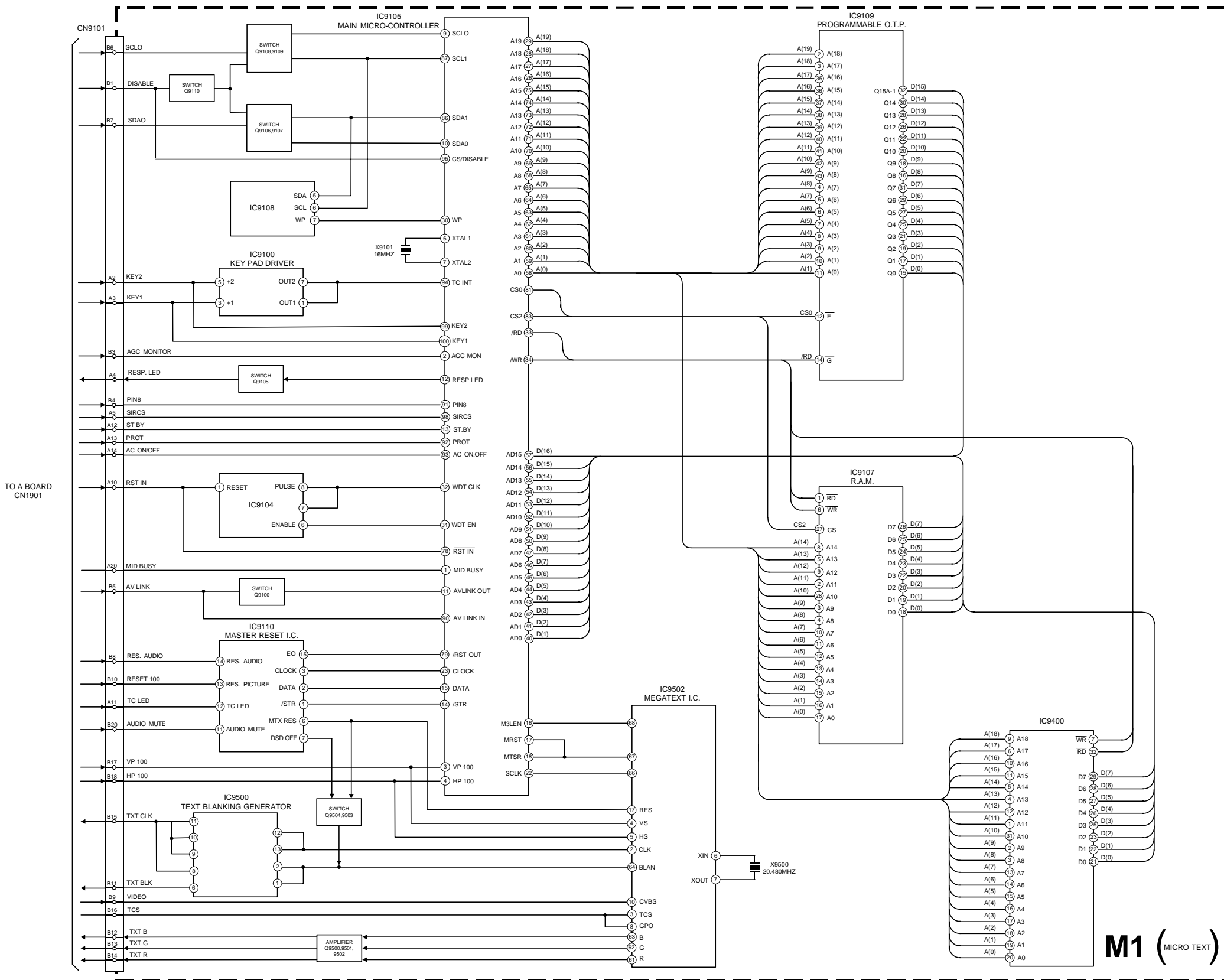
## 5-1. BLOCK DIAGRAMS (2)



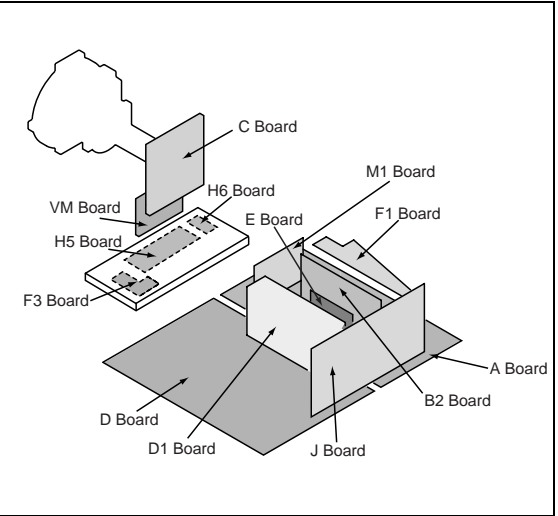
### 5-1. BLOCK DIAGRAMS (3)



5-1. BLOCK DIAGRAMS (4)



5-2. CIRCUIT BOARD LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

- Note :**
- All capacitors are in  $\mu F$  unless otherwise noted.
  - $pF$  :  $\mu F$  50WV or less are not indicated except for electrolytic types.
  - Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm  
Electrical power rating : 1/4W

- Chip resistors are 1/10W
- All resistors are in ohms.
- $k = 1000$  ohms,  $M = 1000,000$  ohms

- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation or adjustment for repair.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in Volts.
- Readings are taken with a 10Mohm digital multimeter.
- Readings are taken with a color bar input signal.
- Voltage variations may be noted due to normal production tolerances.

- : B + bus.
- : B - bus.
- : RF signal path.
- : earth - ground.
- : earth - chassis.

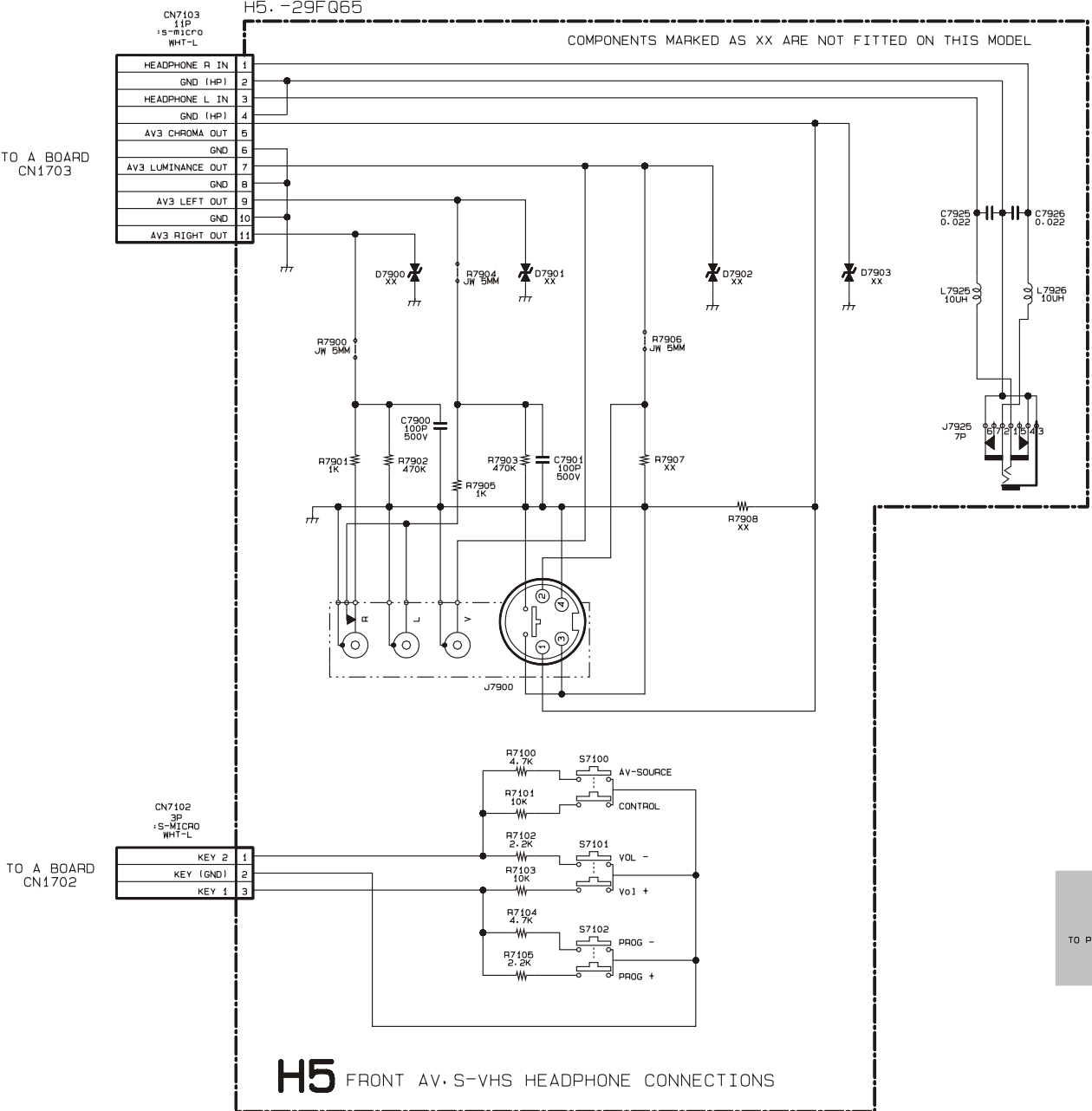
Reference Information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NON FLAMMABLE CARBON
	FUSE	: NON FLAMMABLE FUSIBLE
	RS	: NON FLAMMABLE METAL OXIDE
	RB	: NON FLAMMABLE CEMENT
	RW	: NON FLAMMABLE WIREWOUND
		: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

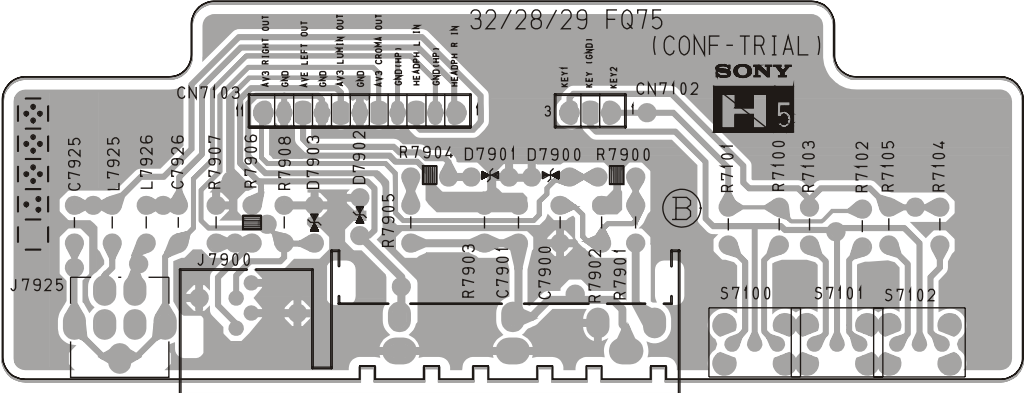
**Note :** The components identified by shading and marked are critical for safety. Replace only with the part numbers specified in the parts list.

**Note :** Les composants identifiés par une trame et par une marque sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

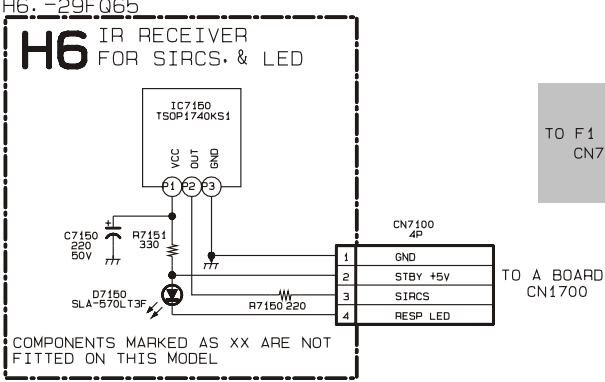
H5[ FRONT AV, S-VIDEO ]



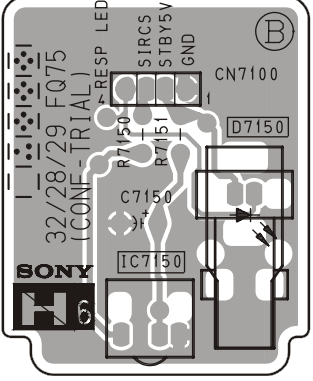
H5[ PRINTED WIRING BOARD ]



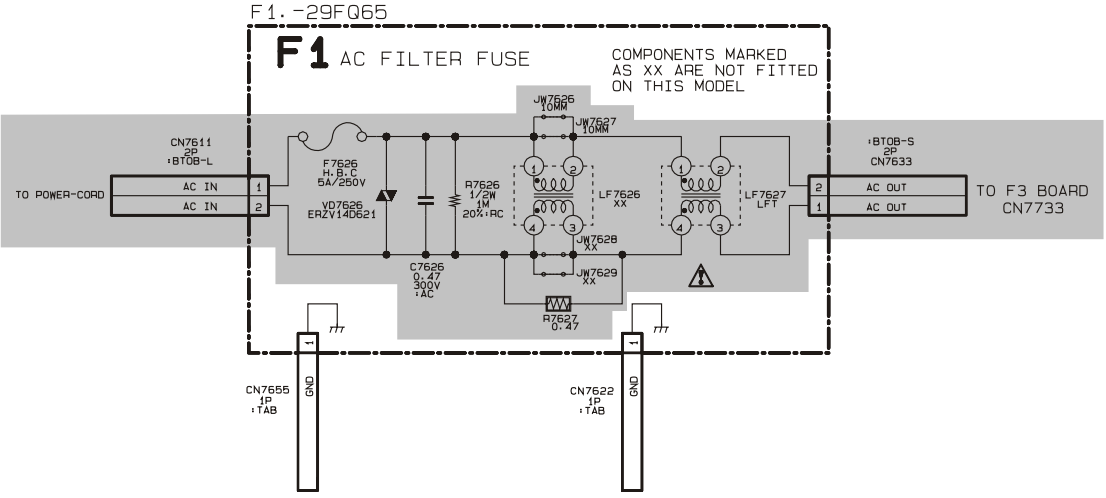
H6[ IR RECEIVER FOR SIRCS AND LED ]



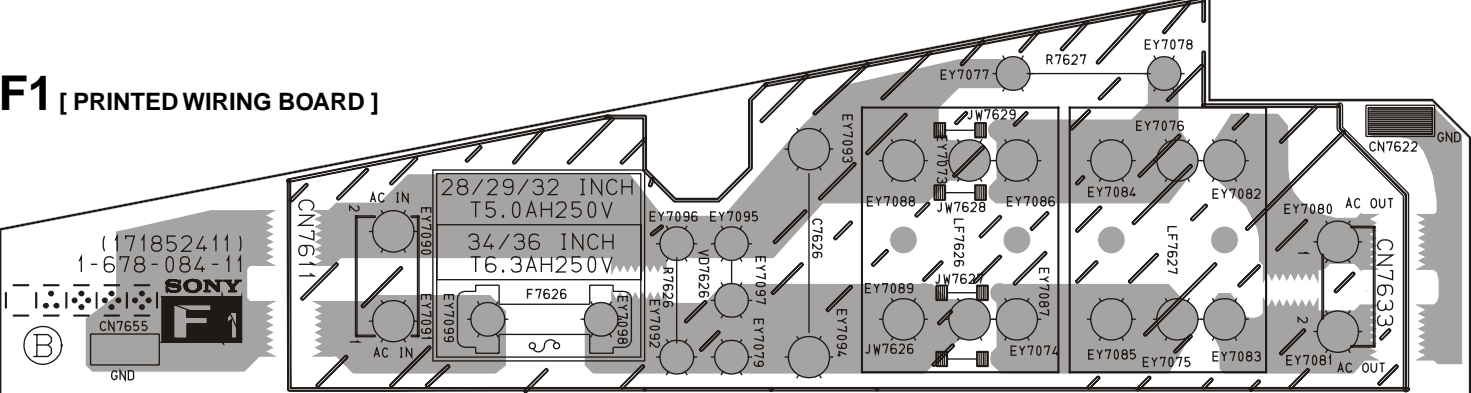
H6[ PRINTED WIRING BOARD ]



F1 [ AC FILTER FUSE ]



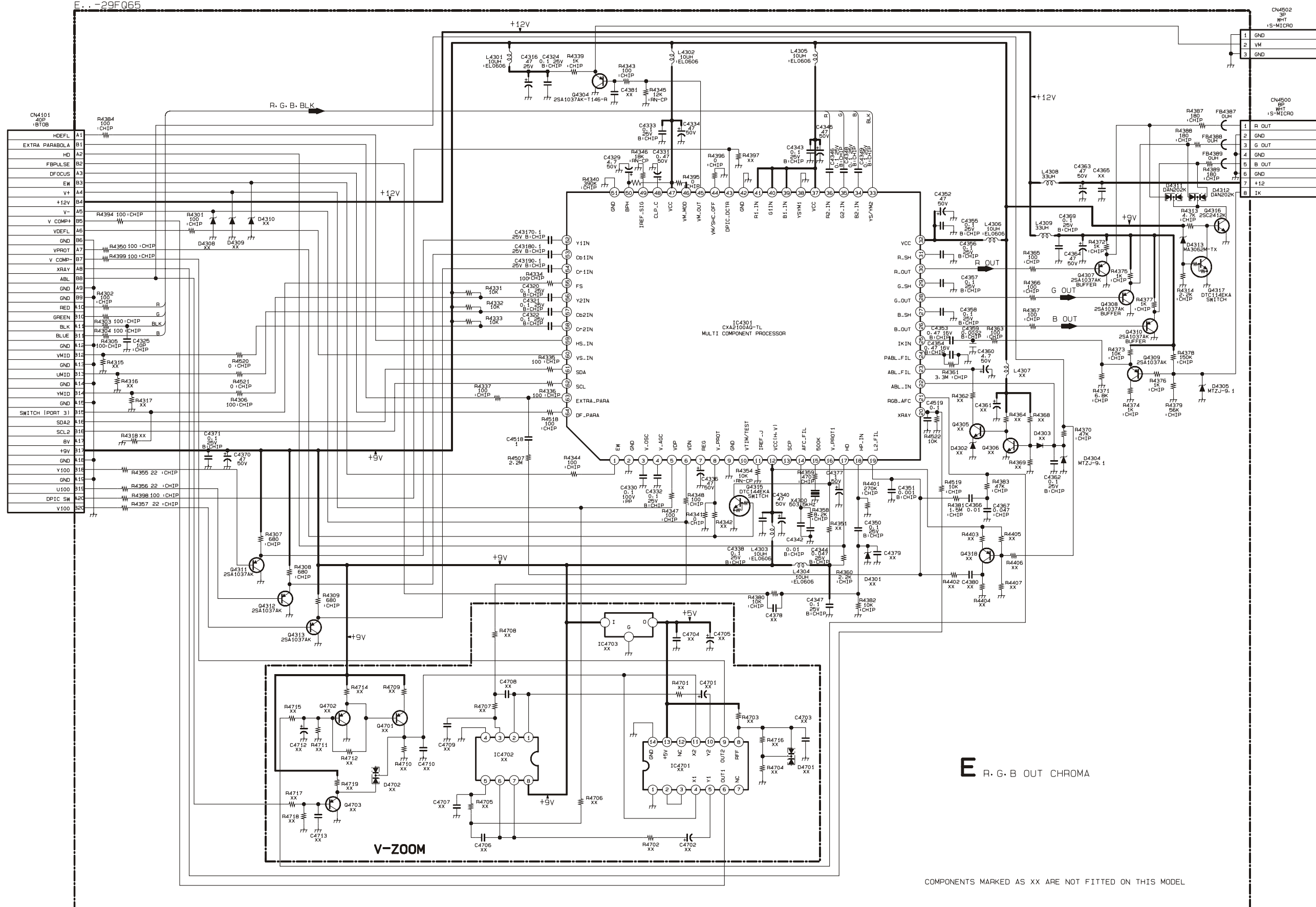
F1 [ PRINTED WIRING BOARD ]





TO A BOARD  
CN1401

E...-29F065

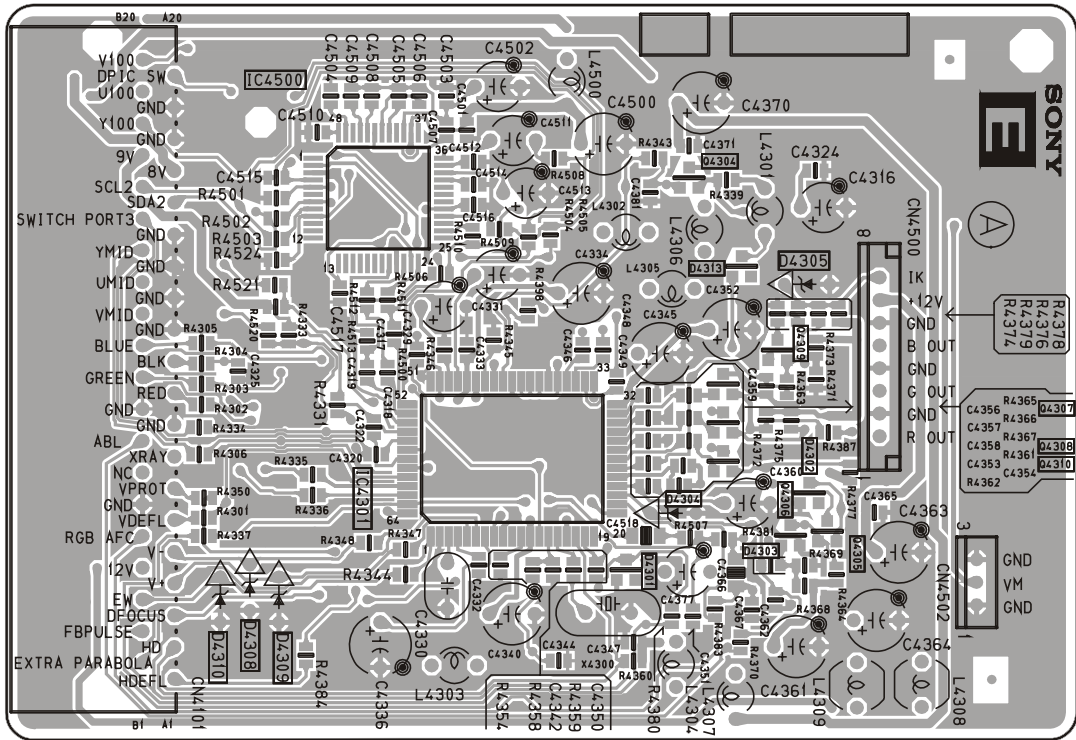


COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

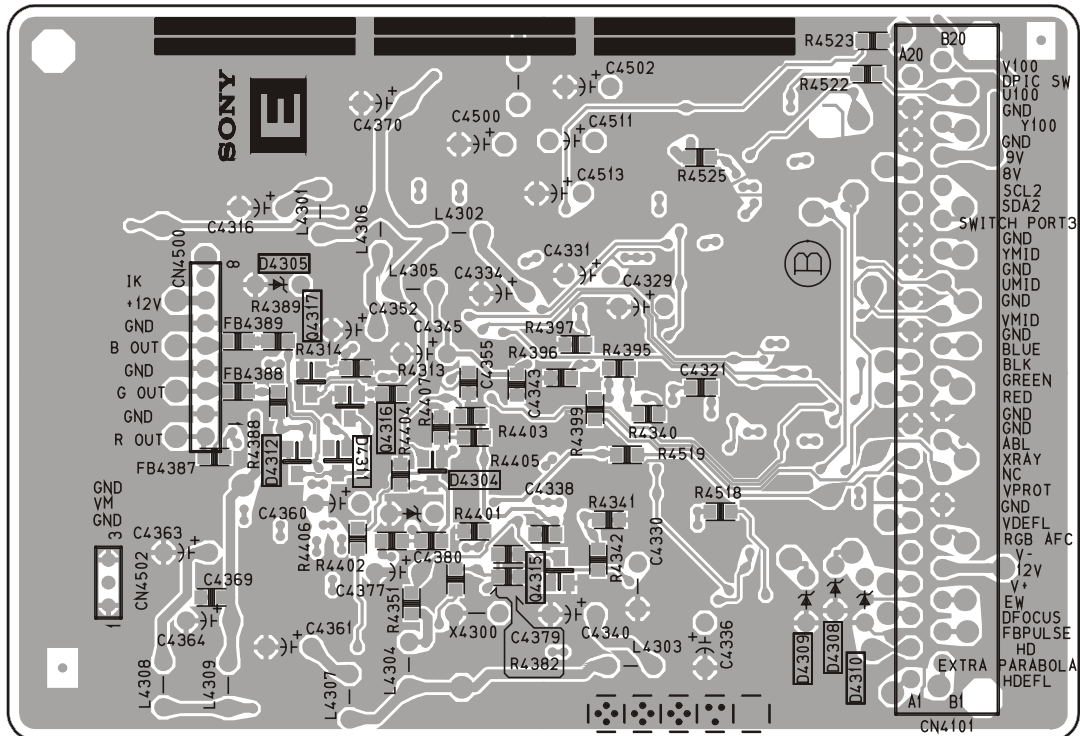
E [ R, G, B OUT CHROMA ]



## E [ PRINTED WIRING BOARD (A side) ]

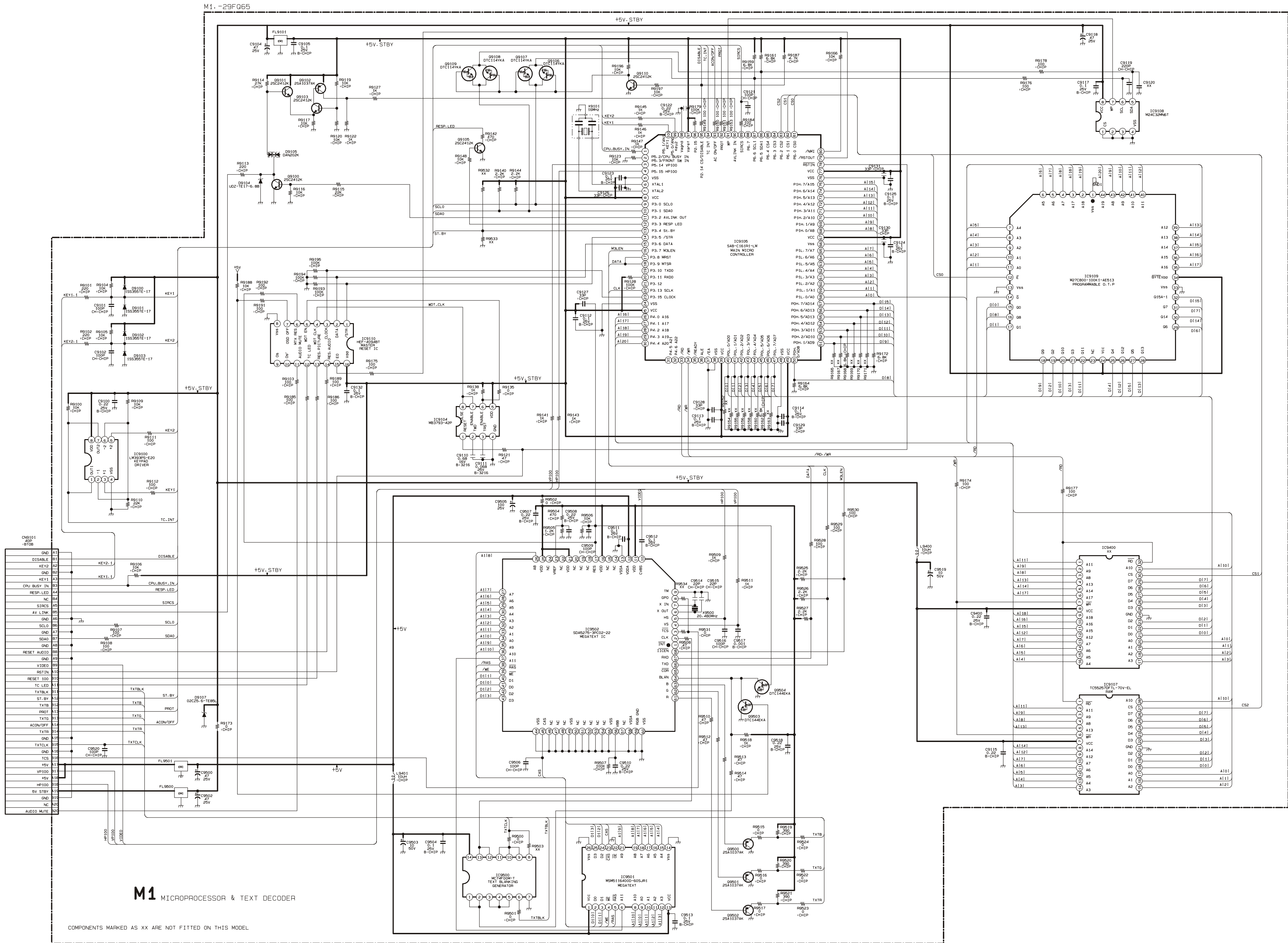


## E [ PRINTED WIRING BOARD (B side) ]



[illegible]

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P  
Q  
R  
S  
T

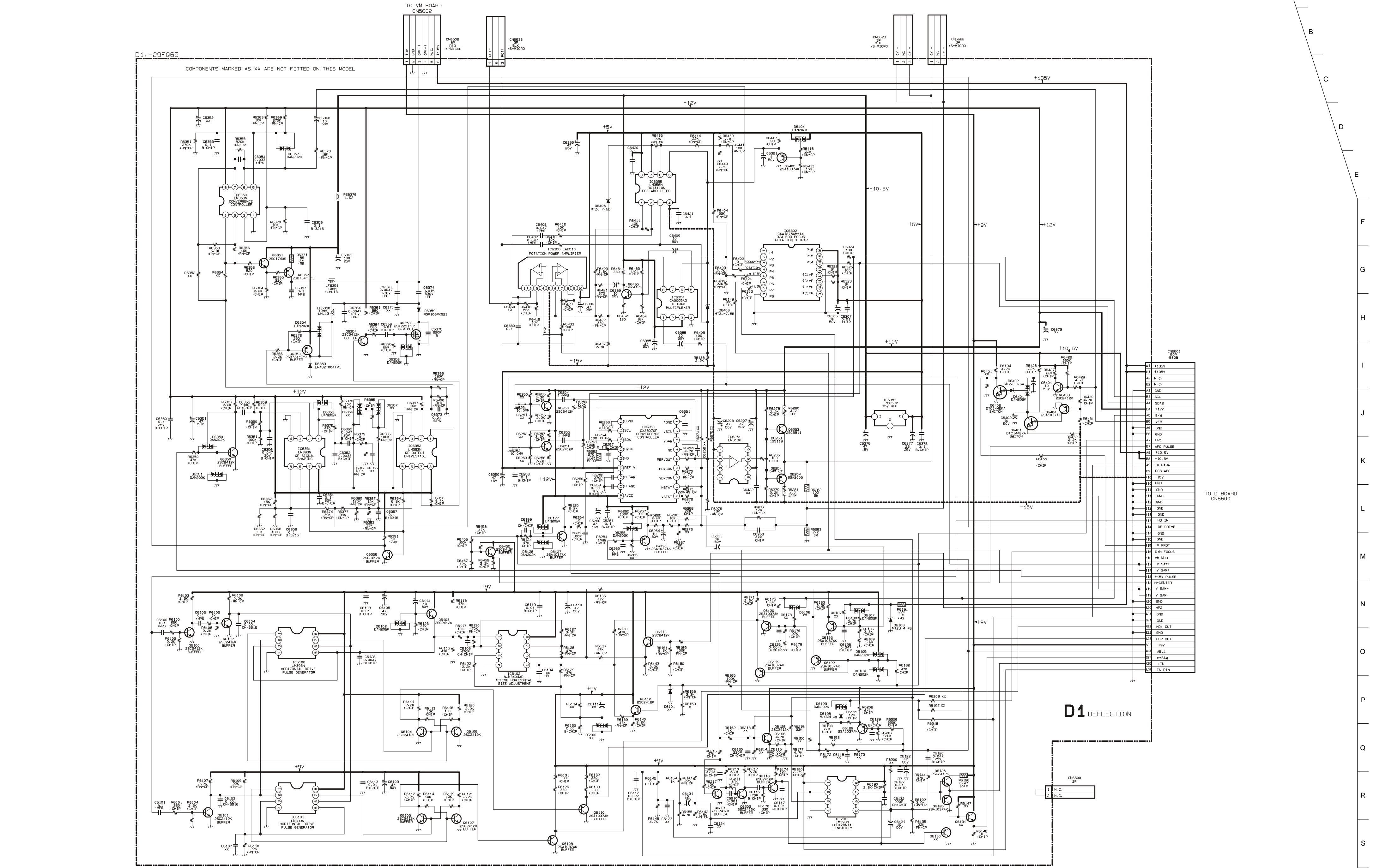


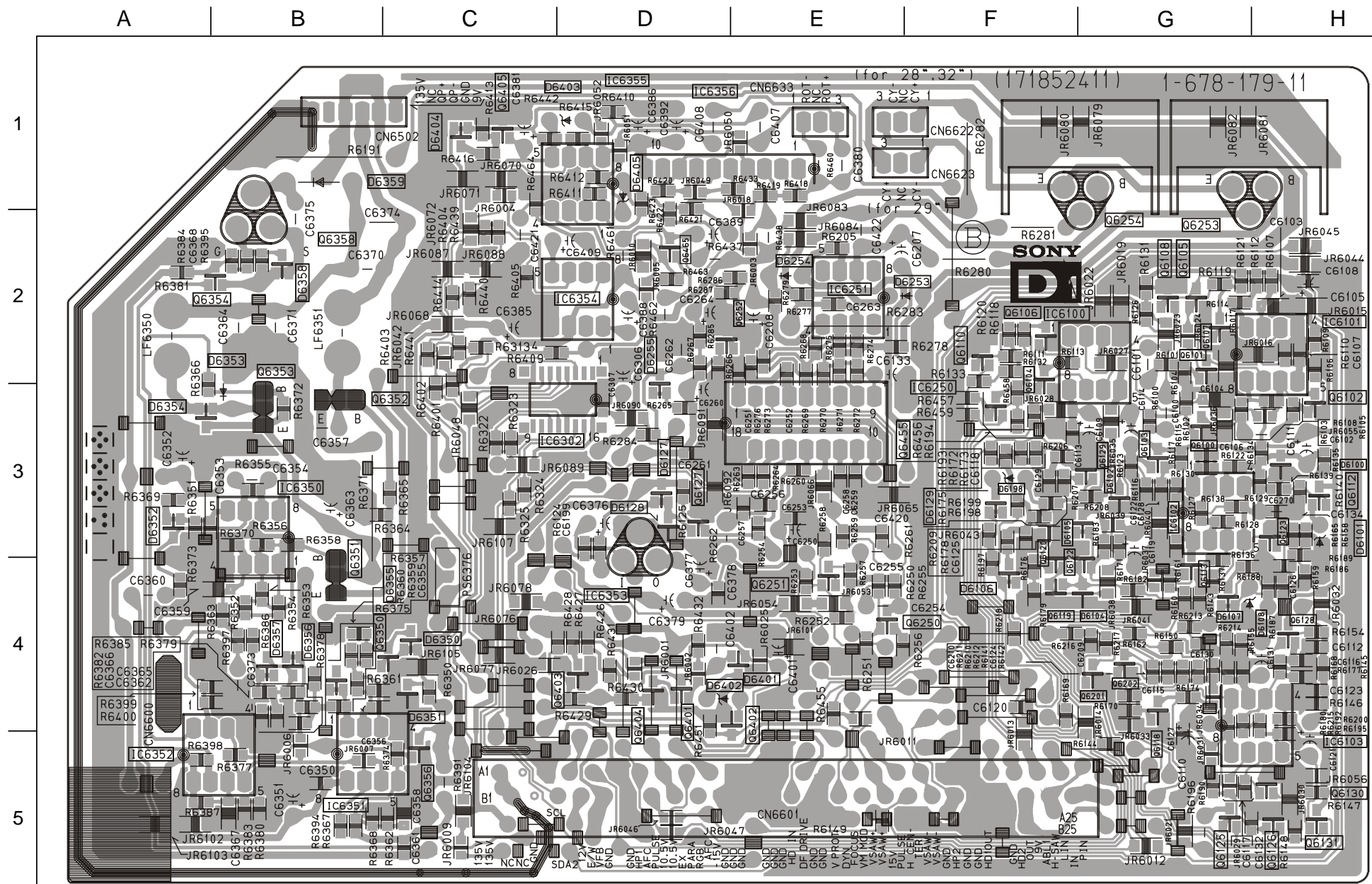
M1 MICROPROCESSOR & TEXT DECODER

COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

M1 [ MICRO PROCESSOR AND TEXT DECODER ]



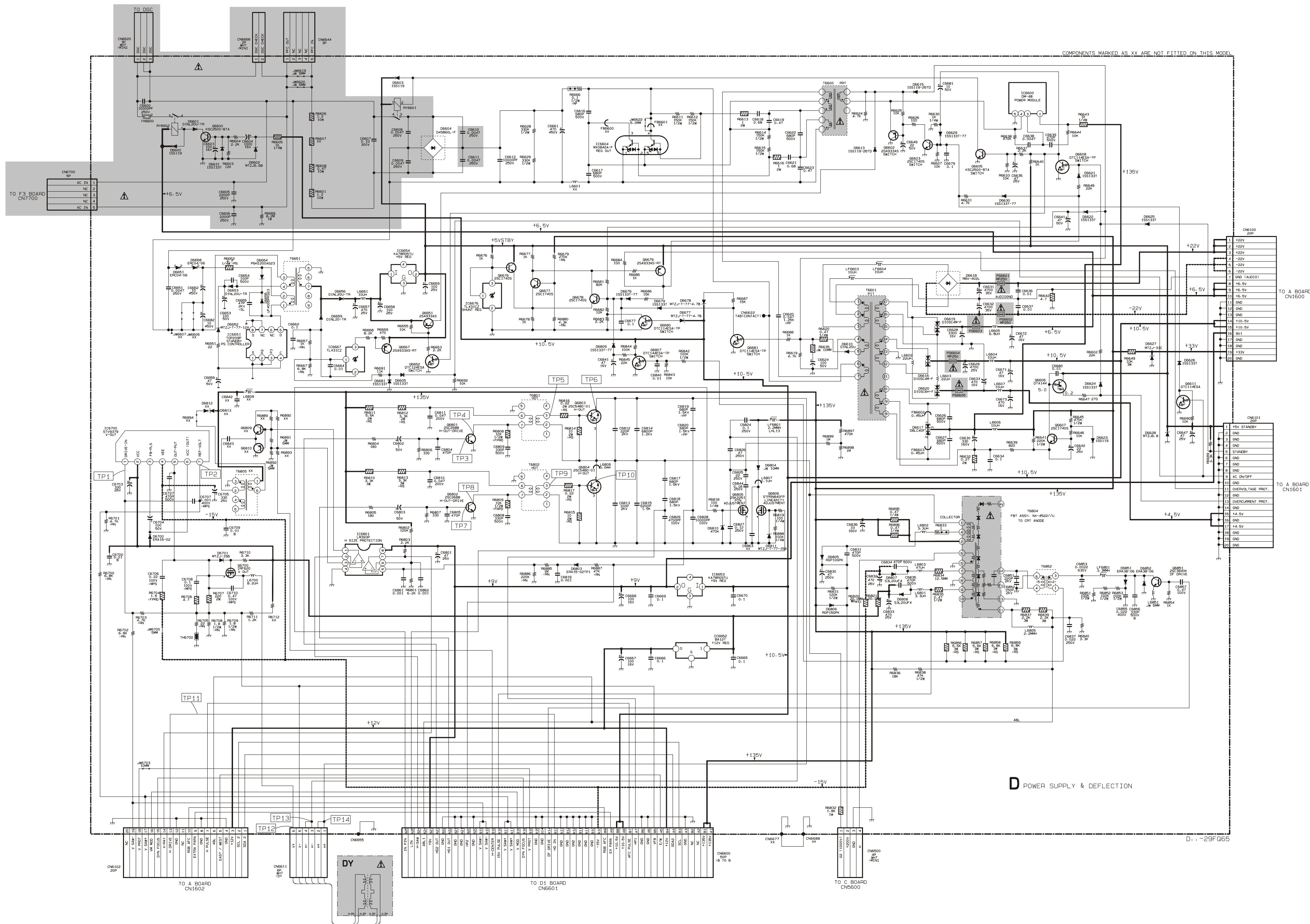




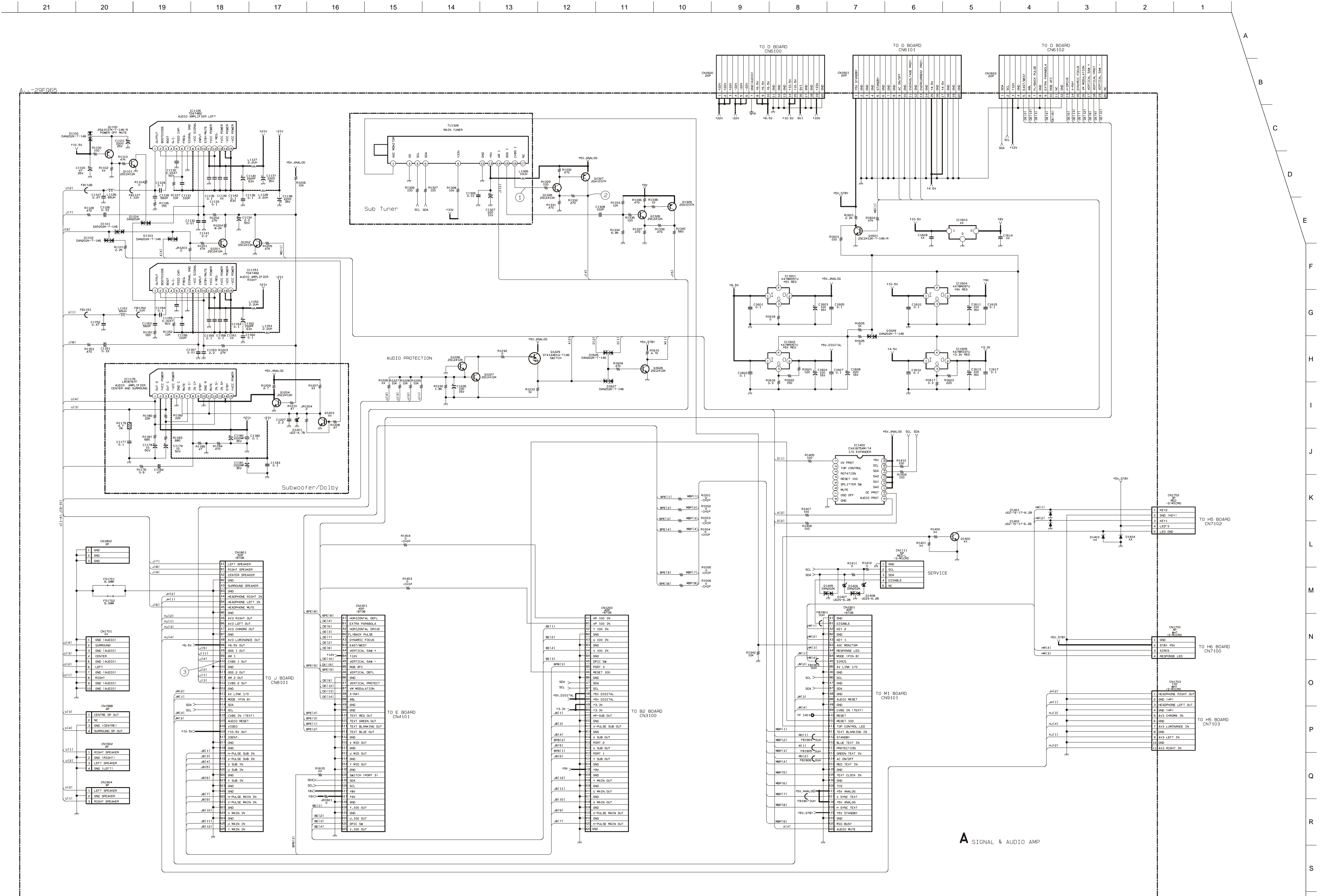
IC	IC6351 B - 5	Q6102 H - 3	Q6113 H - 4	Q6128 H - 4	Q6352 C - 3	Q6405 C - 1	D6127 D - 3	D6354 A - 3
IC6100 G - 2	IC6352 A - 5	Q6103 G - 3	Q6118 G - 5	Q6129 G - 3	Q6353 B - 3	Q6455 F - 3	D6128 D - 3	D6355 C - 4
IC6101 H - 2	IC6353 D - 4	Q6104 F - 3	Q6119 G - 4	Q6201 G - 4	Q6354 B - 2	Q6465 D - 2	D6129 F - 3	D6358 B - 2
IC6102 G - 3	IC6354 D - 2	Q6105 G - 2	Q6120 G - 4	Q6202 G - 4	Q6356 B - 5	DIODE	D6253 F - 2	D6359 C - 1
IC6103 H - 5	IC6355 D - 1	Q6106 F - 2	Q6122 G - 4	Q6250 F - 4	Q6358 B - 2		D6255 D - 2	D6401 E - 4
IC6250 F - 3	IC6356 E - 1	Q6107 H - 2	Q6123 H - 3	Q6251 E - 4	Q6401 D - 5	D6102 G - 3	D6350 C - 4	D6402 E - 4
IC6251 D - 2	TRANSISTOR	Q6108 G - 2	Q6125 H - 5	Q6252 E - 2	Q6402 E - 5	D6105 G - 3	D6351 C - 5	D6403 D - 1
IC6302 D - 3		Q6110 F - 2	Q6126 H - 5	Q6350 C - 4	Q6403 D - 4	D6107 H - 4	D6352 A - 3	D6404 C - 1
IC6350 B - 3	Q6101 G - 2	Q6112 H - 3	Q6127 D - 3	Q6351 B - 5	Q6404 D - 5	D6108 H - 4	D6353 B - 2	D6405 D - 1











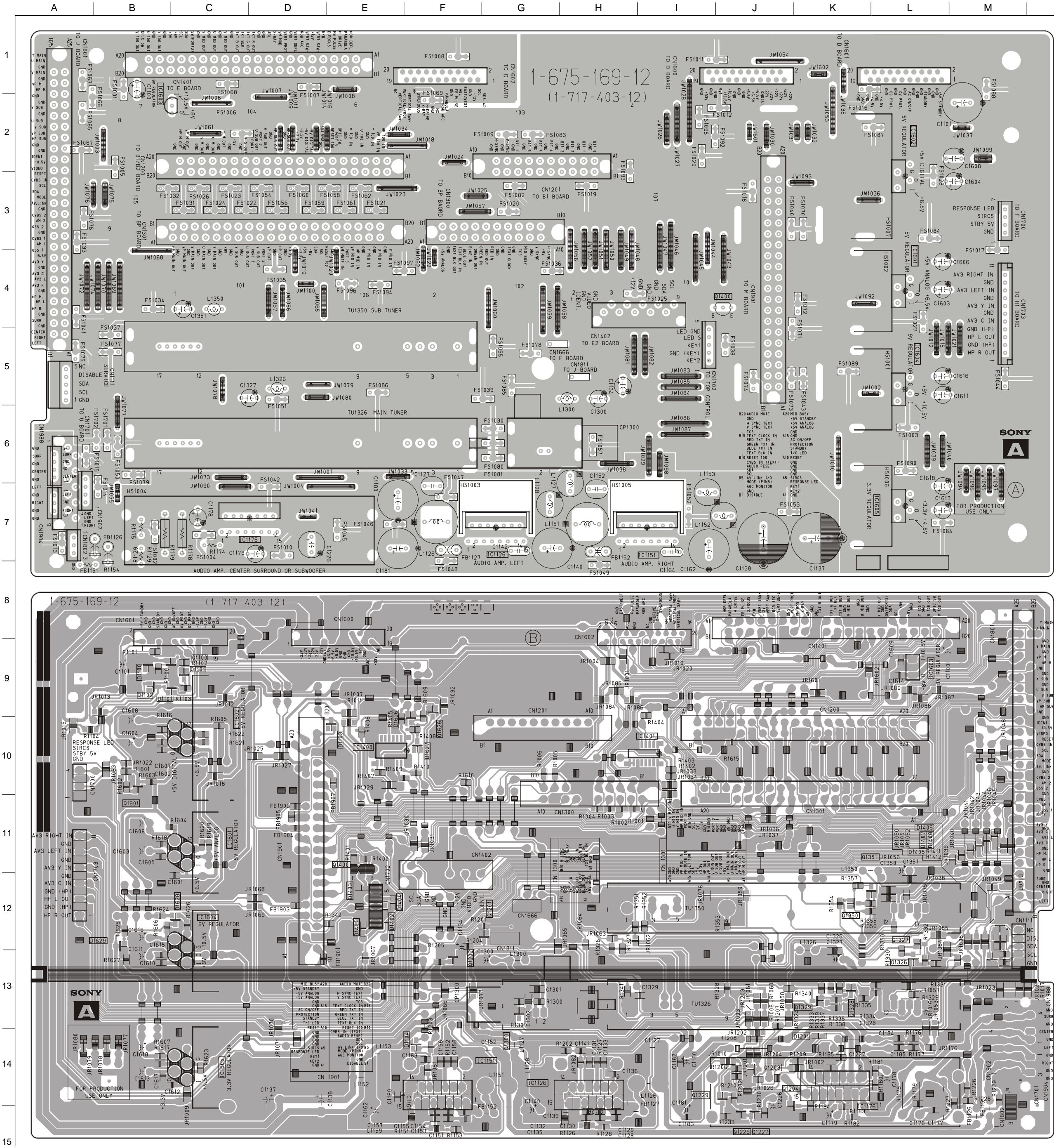


IC Voltage Table

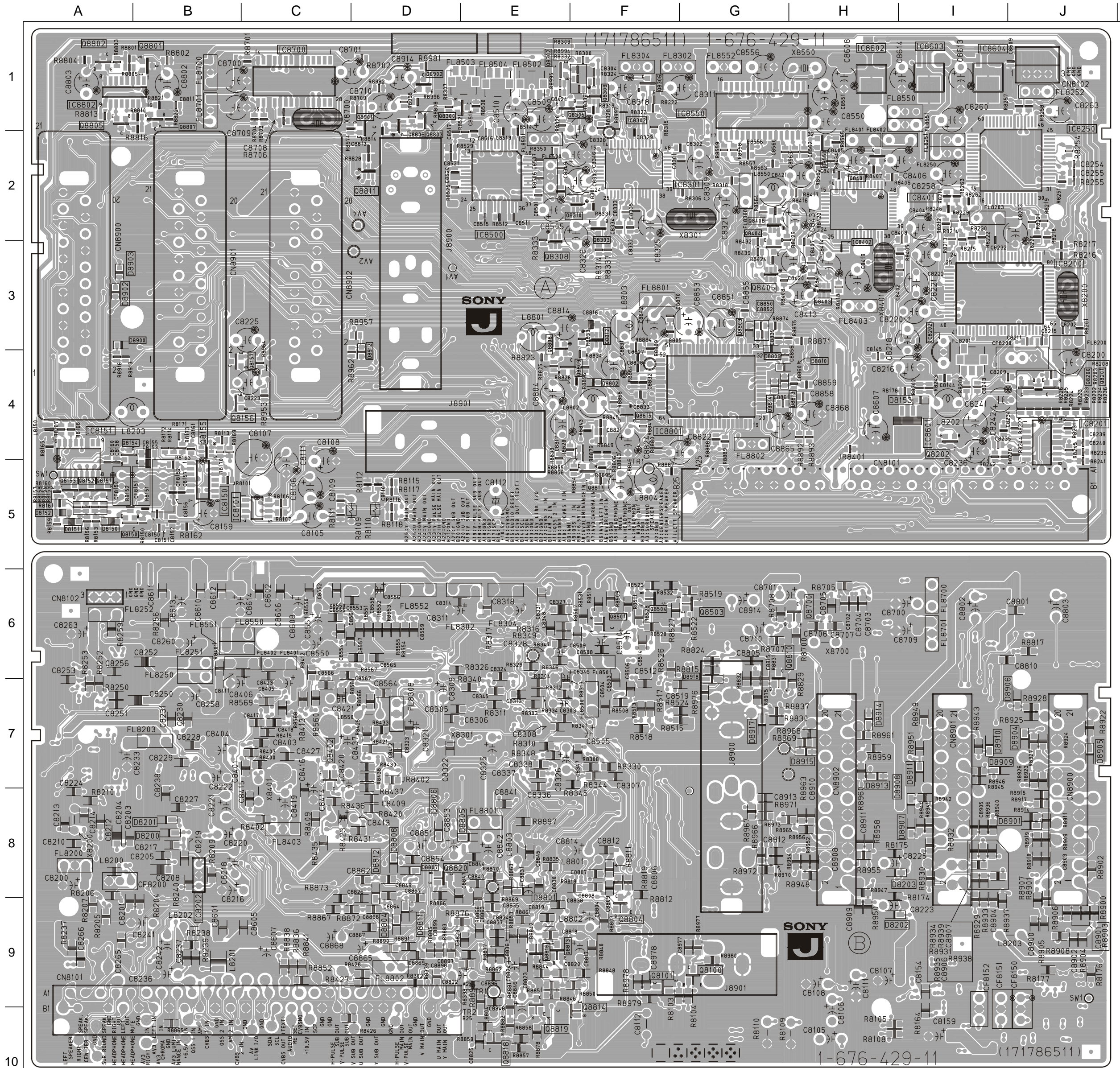
IC Voltage Table		
Ref No	Pin No Voltage (V)	
IC1126	1	0
	2	-11
	3	10
	6	-19
	9	0
	10	4.1
IC1151	12	-11
	1	0
	2	-11
	3	10
	6	-18
	9	0
IC1400	10	4.1
	12	-11
	1	0
	3	4.6
	5	4.6
	6	4.0
IC1176	9	0
	14	4.5
	15	4.5
	1	0
	3	3
	6	3
	7	0
	8	0
	9	0
	11	3
	12	0
	13	0
	14	0

Semiconductor Voltage Table

Ref	(e)	(b)	(c)	Ref	(e)	(b)	(c)
Q1100	10.5	10.6	0	Q1229	5	4.9	0
Q1101	0	0	2.2	Q1326	1.2	1.8	4.4
Q1201	0	0.6	0	Q1327	5	4.4	1.7
Q1202	0	0.1	2.1	Q1328	2.6	3.2	8.3
Q1300	0	4.6	0	Q1329	5	8.3	4.5
Q1226	0	0	4.9	Q1601	0	0	5
Q1227	0	0	4.9	Q1602	3.9	3.3	0







Semiconductor Location Table

IC	Q8150 A - 5	Q8405 G - 3	D8810 G - 4
IC8101 B - 5	Q8151 A - 5	Q8406 G - 2	D8811 D - 9
IC8150 B - 5	Q8152 A - 5	Q8501 F - 6	D8812 D - 8
IC8151 A - 4	Q8153 A - 5	Q8501 D - 1	D8813 G - 4
IC8200 J - 3	Q8154 A - 4	DIODE	
IC8201 J - 4	Q8156 B - 4	D8150 A - 5	D8900 A - 3
IC8202 I - 3	Q8157 C - 4	D8151 A - 5	D8901 J - 8
IC8301 F - 2	Q8200 J - 3	D8152 A - 5	D8902 A - 3
IC8302 F - 1	Q8201 J - 4	D8153 I - 4	D8903 A - 3
IC8401 I - 2	Q8202 I - 4	D8200 B - 8	D8904 J - 7
IC8402 H - 2	Q8300 D - 1	D8201 B - 8	D8905 J - 7
IC8500 E - 2	Q8302 E - 1	D8202 H - 9	D8906 I - 7
IC8550 G - 1	Q8303 F - 2	D8203 H - 8	D8907 I - 8
IC8601 I - 4	Q8305 E - 1	D8801 E - 8	D8908 I - 8
IC8602 H - 1	Q8306 F - 1	D8802 F - 4	D8909 I - 7
IC8603 I - 1	Q8308 E - 3	D8803 G - 3	D8910 I - 7
IC8604 I - 1	Q8309 F - 1	D8804 D - 9	D8911 I - 7
IC8700 C - 1	Q8310 E - 2	D8805 D - 8	D8912 D - 3
IC8801 F - 4	Q8401 H - 2	D8806 D - 8	D8913 H - 7
TRANSISTOR	Q8402 C - 7	D8807 D - 8	D8914 H - 7
	Q8100 G - 9	D8808 D - 8	D8915 H - 7
	Q8101 F - 9	Q8404 G - 2	D8809 G - 3

IC Voltage Table

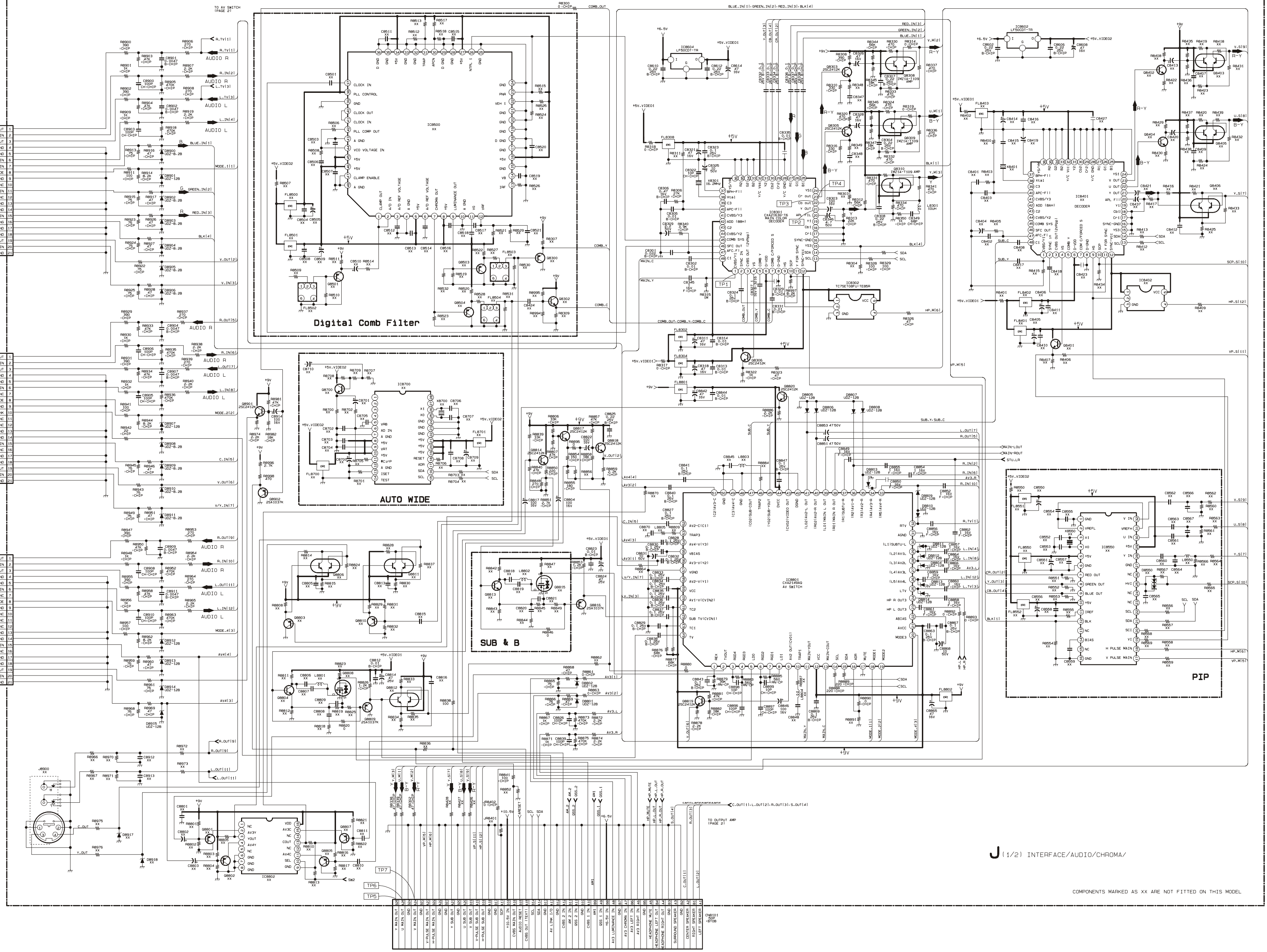
IC Voltage Table						
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	
IC8200	2-3	4.7	IC8500	1-2	1.5	
	4-6	2.5		3	0.5	
	7	0.6		6	2.6	
	17	0.7		7	0.9	
	21	5.0		9	1.0	
	36	3.8		11	2.8	
	37	3.7		12-13	1.8	
	38	7.0		14	1.0	
	40	7.0		22-23	5.0	
	45	3.7		26	5.0	
	56-57	3.8		30	5.0	
	58	2.6		37	2.4	
	60	3.8		40-42	1.9	
	67	0.4		44	1.9	
	68-69	1.5		IC8101	1	4.2
71	2.4	3	4.1			
72	2.2	5	0.6			
IC8201	1-3	5.0	8		0.5	
	5-10	5.0	IC8801		1	1.8
	12-14	5.0		2-4	4.5	
IC8301	1	2.4	IC8801	5	0	
	2	1.9		6-7	4.6	
	3	1.5		8	0	
	4	0.1		9	4.6	
	5	2.4		10	3.4	
	7	2.6		11	3.8	
	9	0.3		13	4.5	
	10	0.8		22-30	4.5	
	11	2.5		32-41	4.5	
	13-14	4.5		43	4.6	
	20	2.4		45	3.7	
	21	1.8		46	3.5	
	22-23	1.9		47	4.5	
	24	0.1		49	4.5	
	25-27	2.5		51-80	4.5	
29	2.8	IC8151	2	2.4		
37	1.1		3	4.6		
38	4.0		4	4.6		
IC8401	1		2.3	IC8151	5	0.4
	2		1.9		6	4.6
	4	0.1	7		0.4	
	9	0.3	9		0	
	10	4.0	10		2.6	
	11	2.4	IC8150	1	3.0	
	20	2.4		2	2.5	
	21	1.7		3	1.7	
	22-23	1.9		6	4.3	
	37	1.1		12	2.4	
	38	4.0	IC8150	13	4.6	
	40	3.3		14	2.5	
	47	3.8				
	48	1.8				

Semiconductor Voltage Table

Ref	(e)	(b)	(c)	Ref	(e)	(b)	(c)
Q8150	2.9	3.6	5.0	Q8302	1.0	1.6	9.0
Q8151	0	4.4	4.8	Q8303	1.3	1.9	7.7
Q8152	0	4.6	0	Q8305	1.3	1.9	7.3
Q8153	0	0.4	4.8	Q8306	0.1	0.1	5.0
Q8154	0	4.6	0	Q8401	0.1	0.1	5.0
Q8156	3.9	4.6	9.0	Q8404	1.2	1.9	7.4
Q8157	3.9	4.6	9.0	Q8809	2.7	2.1	0
Q8200	1.9	2.5	5.0	Q8817	3.9	4.6	9.0
Q8201	1.2	1.9	5.0	Q8901	1.9	2.5	9.0
Q8202	5.1	5.8	9.0	Ref	(s)	(g)	(d)
Q8300	1.6	1.0	0	Q8815	1.8	0	0.6



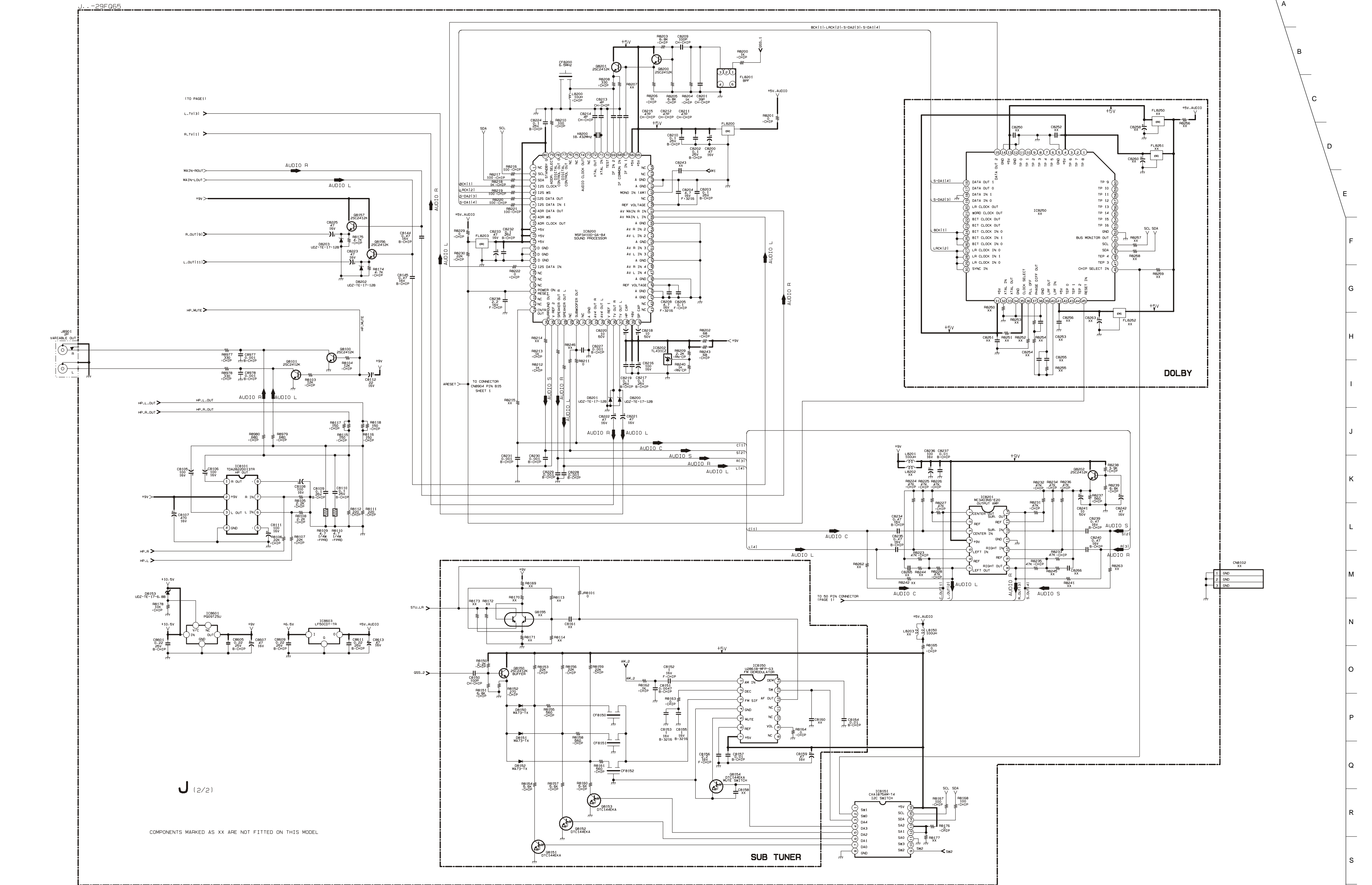
J. - 29F 065



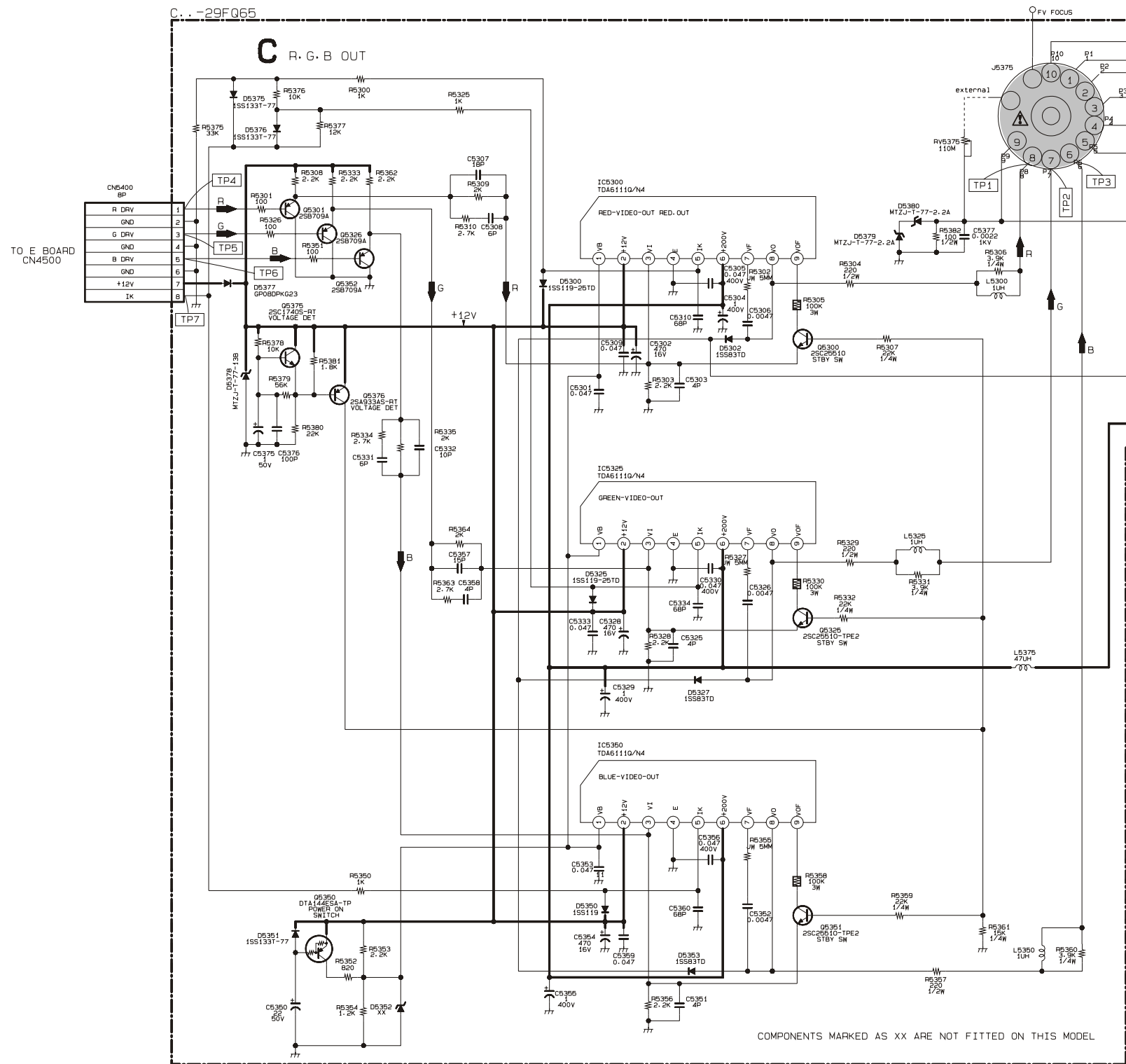
J (1/2) INTERFACE/AUDIO/CHROMA/

COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

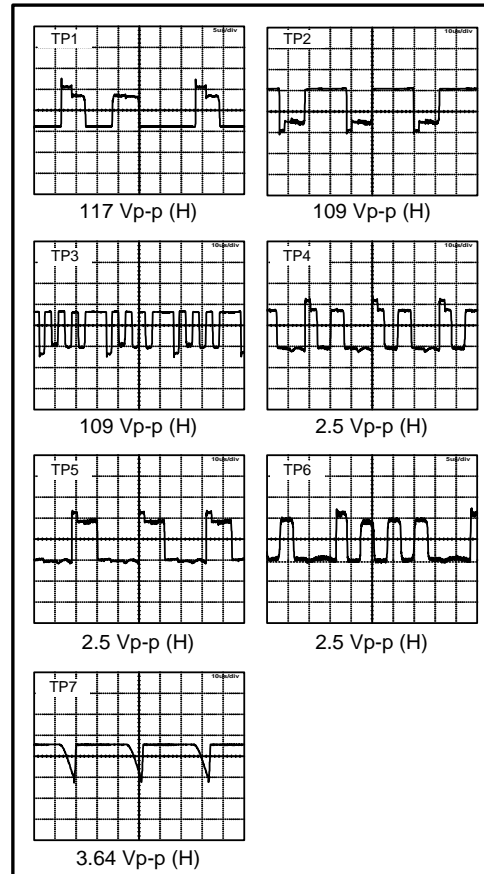
TO A BOARD  
CN1501





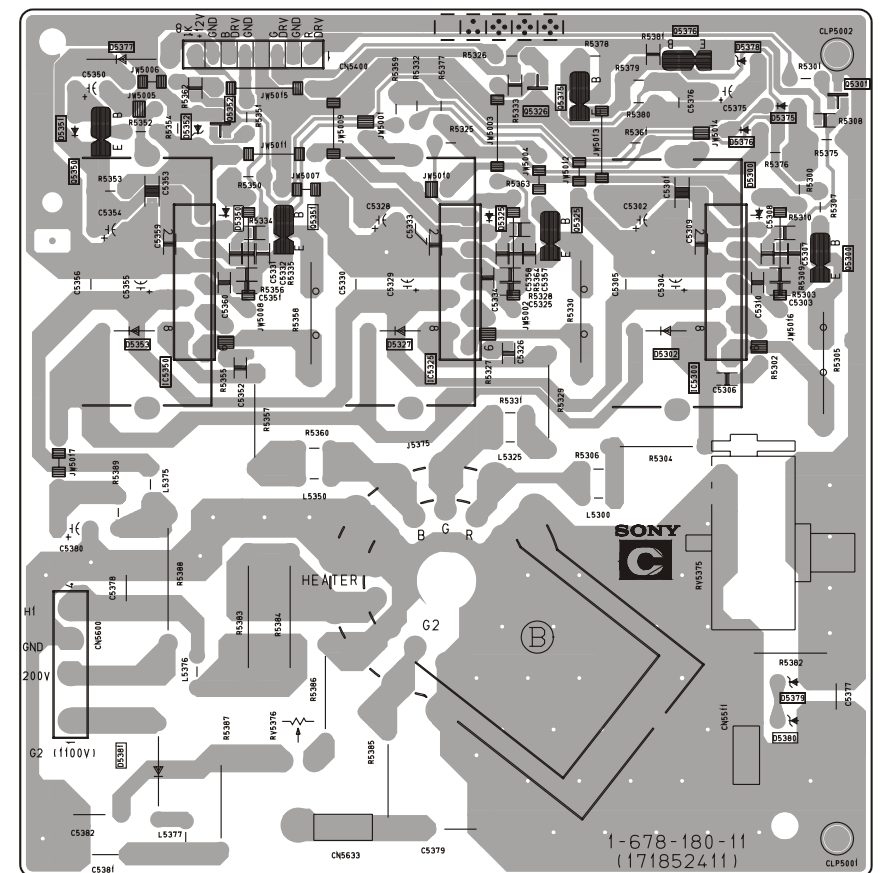
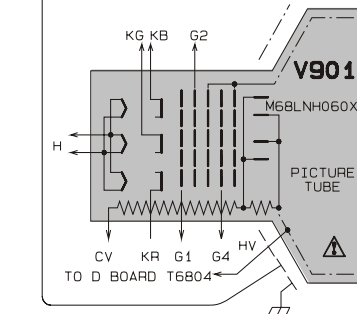


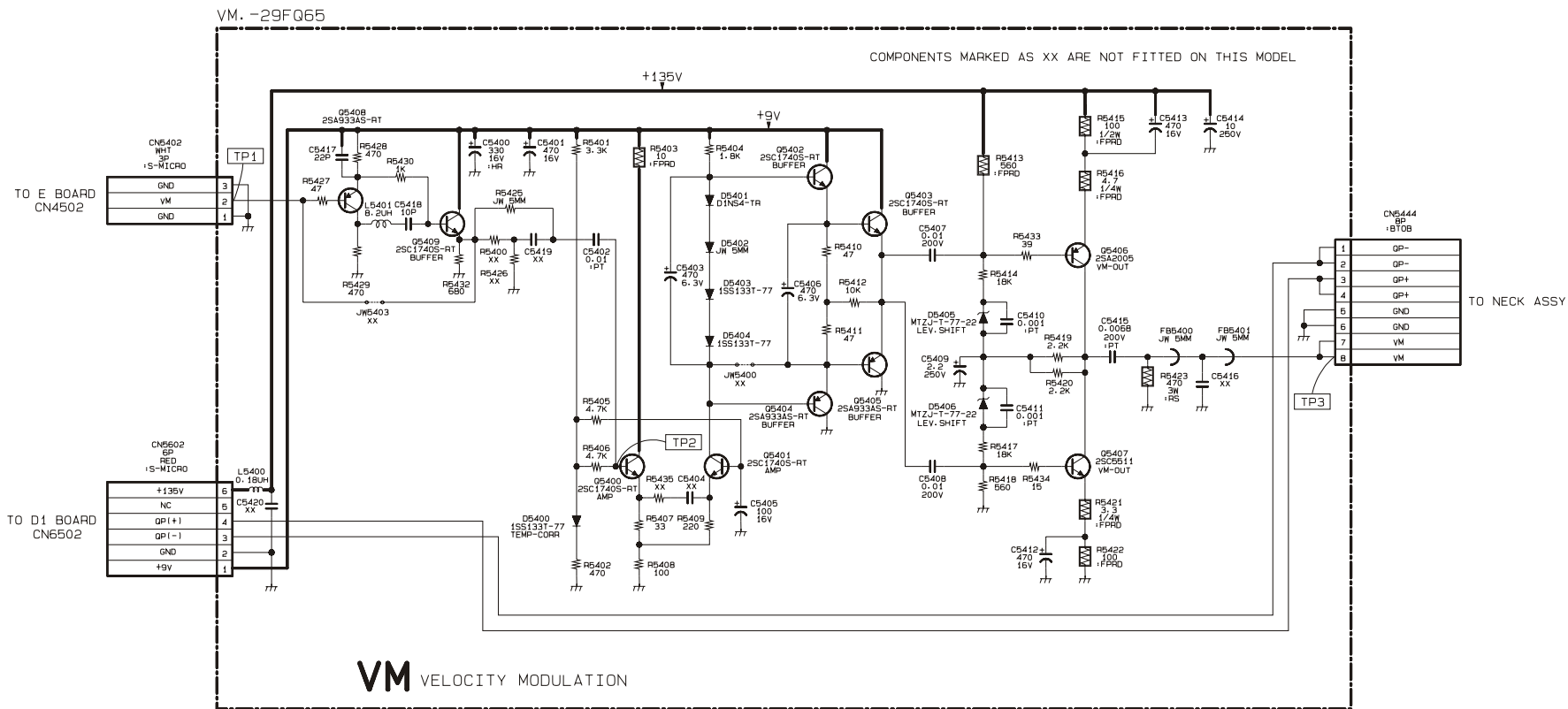
C board Waveforms



Ref	(e)	(b)	(c)	Ref	(e)	(b)	(c)
Q5301	3.5	2.8	0	Q5300	3.7	4.4	3.8
Q5326	3.6	3	0	Q5325	3.7	4.4	3.8
Q5352	3.7	3	0	Q5351	3.8	4.4	3.9
Q5375	10.3	10.9	11	Q5350	11	10.9	3.9
Q5376	11	10.3	10.9				

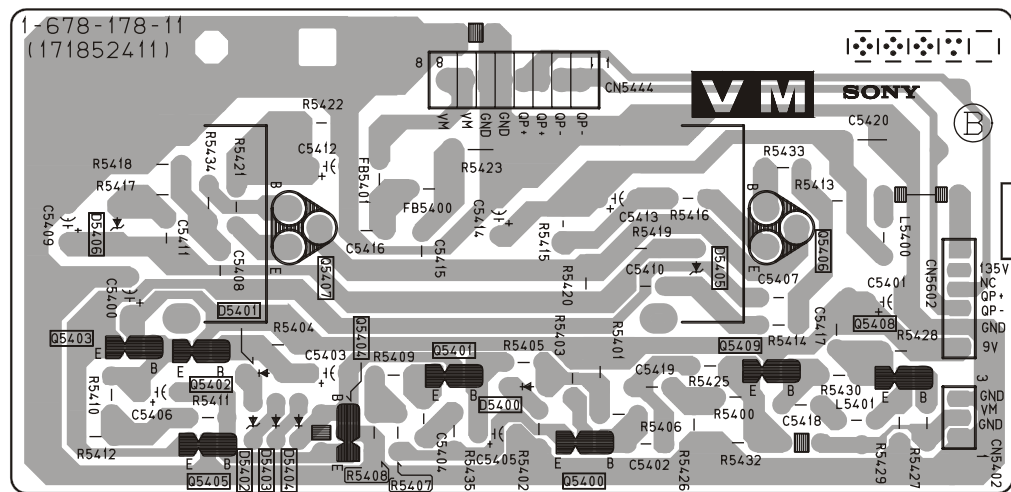
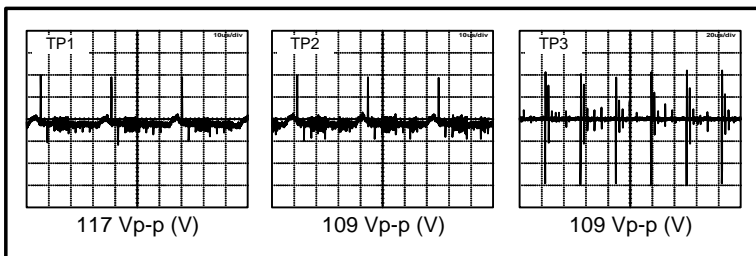
IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC5300	1	3.9
	3	3.8
	5	8.4
	7	153.0
	8	157.0
IC5325	1	3.9
	3	3.8
	5	8.7
	7	150.0
	8	155.0
IC5350	1	3.9
	3	3.8
	5	8.4
	7	150.0
	8	156.0
	9	149.0



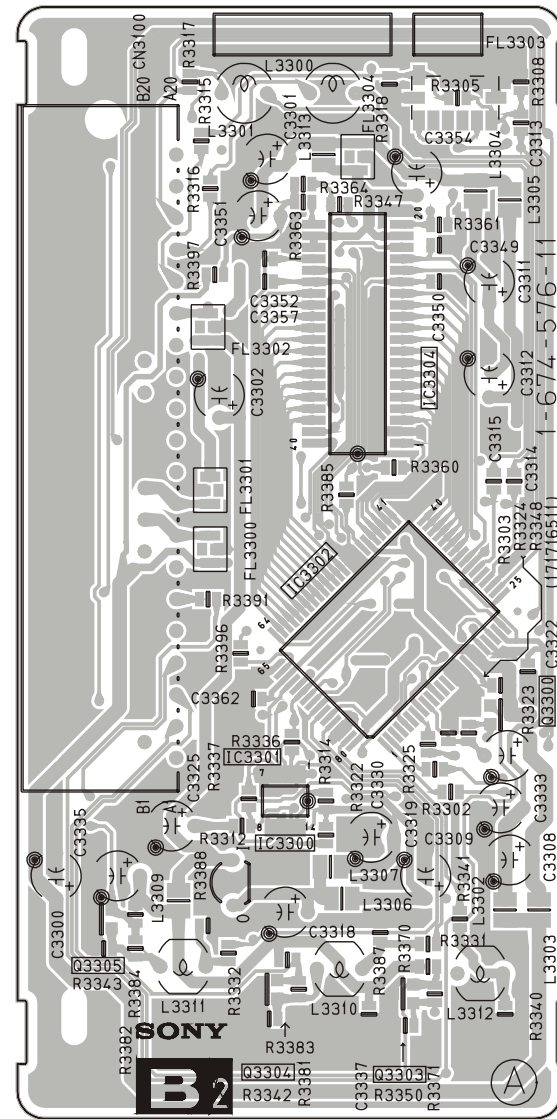


Ref	(e)	(b)	(c)
Q5400	0.9	1.5	9.0
Q5401	1.0	1.6	5.2
Q5402	6.0	6.6	9.0
Q5403	5.9	6.0	9.0
Q5404	5.2	5.9	0
Q5405	5.9	5.8	0
Q5406	135.1	134.6	68.2
Q5407	0.8	1.4	68.2
Q5408	7.6	6.9	1.4
Q5409	6.9	7.5	9.0

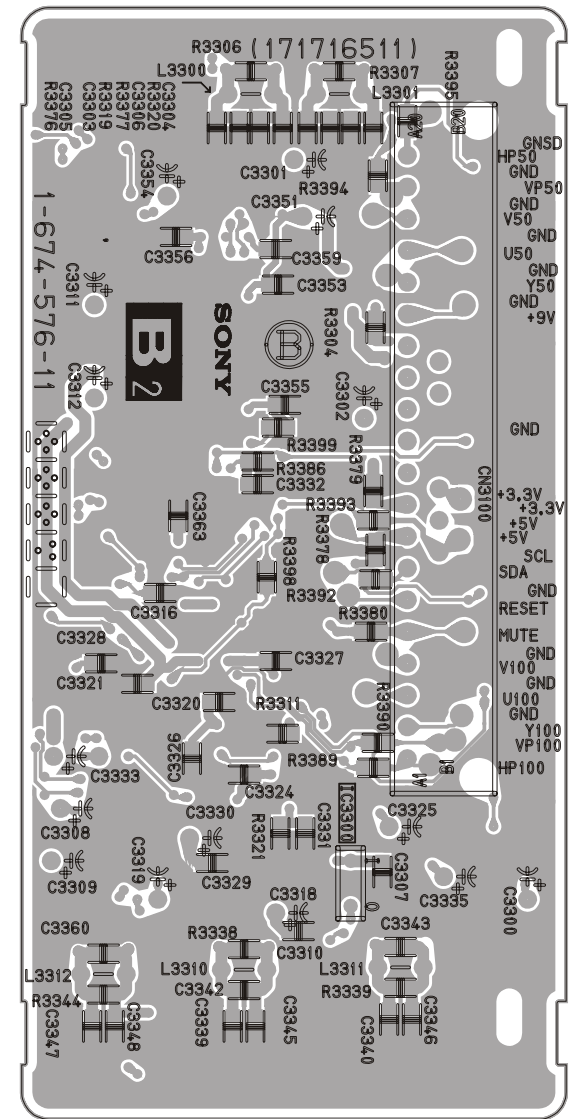
VM board Waveforms



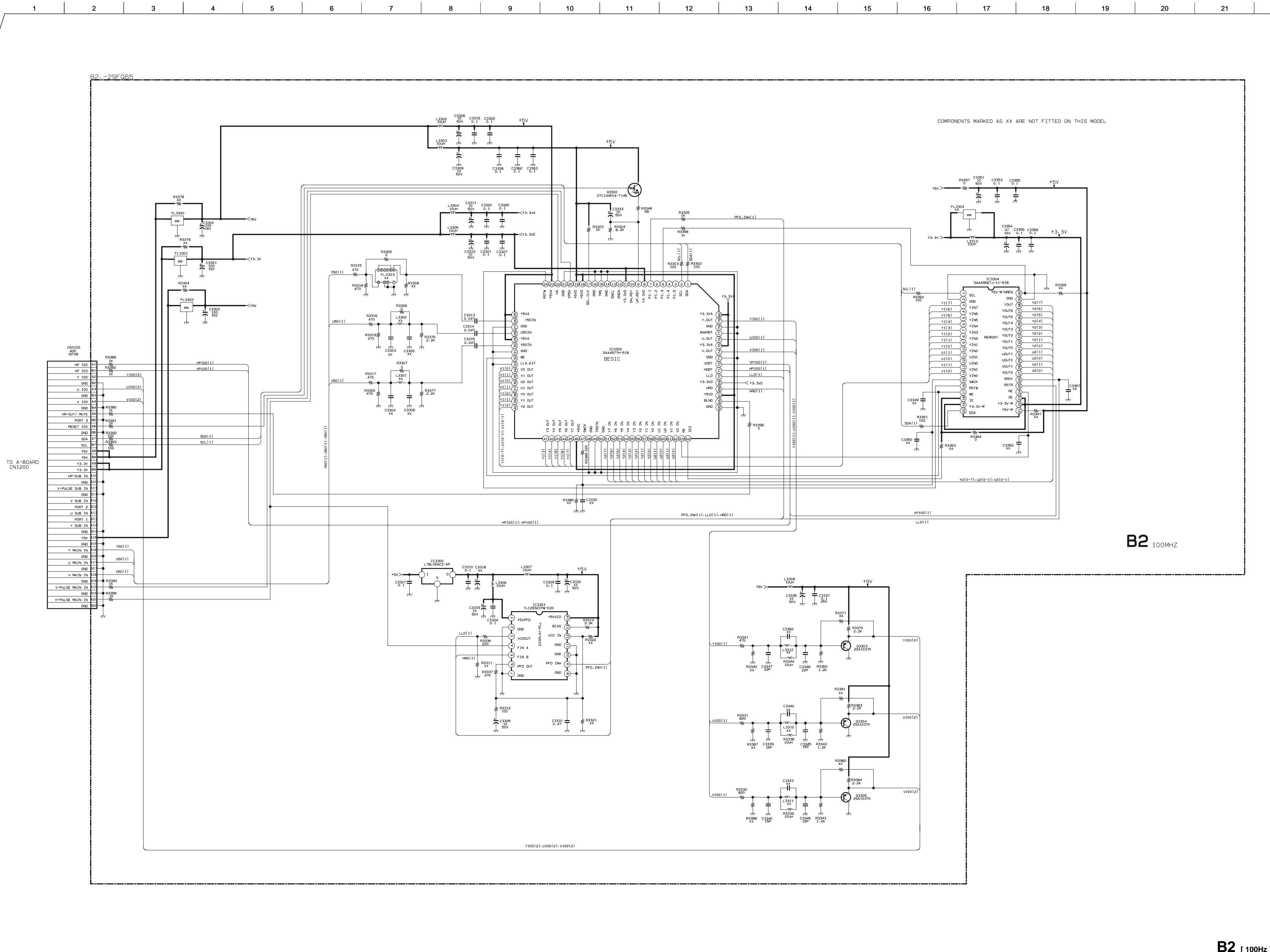
**VM** [ PRINTED WIRING BOARD ]



**B2** [ PRINTED WIRING BOARD [A] SIDE ]

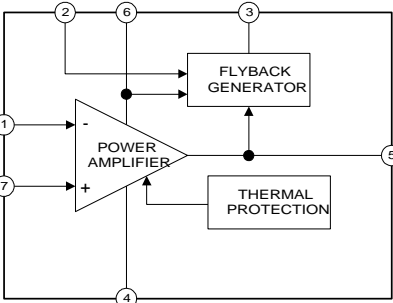


**B2** [ PRINTED WIRING BOARD [B] SIDE ]

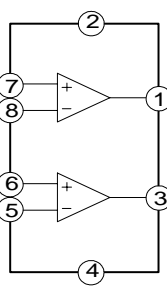


5-5. IC BLOCK DIAGRAMS

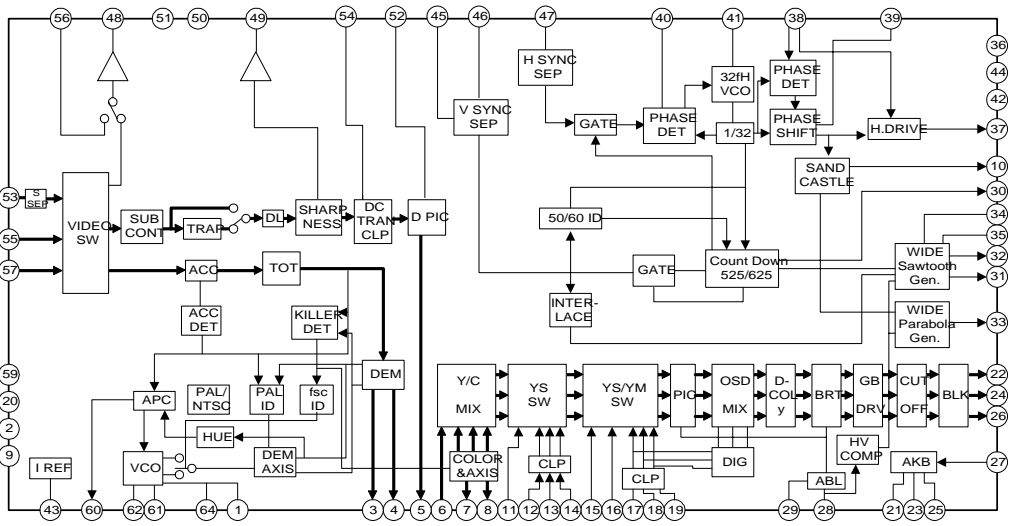
D BOARD IC6700 STV 9379



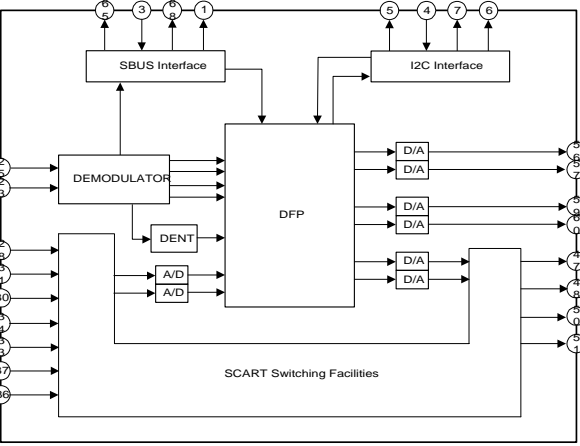
J BOARD IC8101 TDA2822D



E BOARD IC4301 CXA2100Q-TL

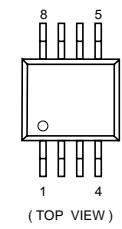


J BOARD IC8200 MSP3410D-QA-B4

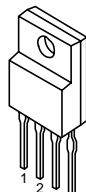


5-4 SEMICONDUCTORS

BA7046F  
BA7046F-T1  
LM393PS-E20  
MB3793-42NF  
MB3793-42NF-ER  
NJM2240M  
NJM2240M(TE2)  
NJM3404AD

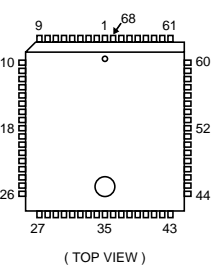


KA78R05TU  
KA78R09TU  
KA78R33TU

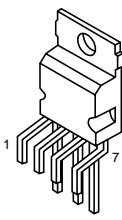


1 : V IN  
2 : V OUT  
3 : GND  
4 : ON/OFF CONTROL

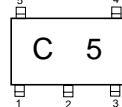
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STV9379



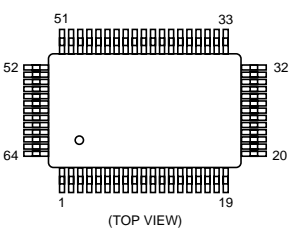
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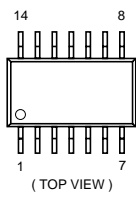
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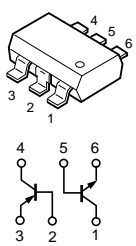
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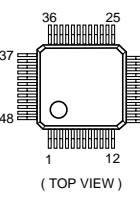


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2SC2551O-TPE2

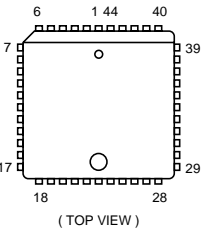


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LM393N  
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ST24C16FB6  
TDA2822M  
UPC393C

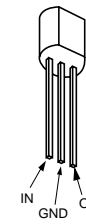
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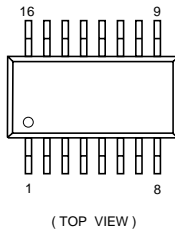
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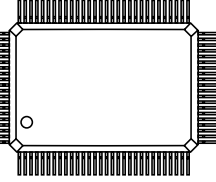
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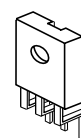
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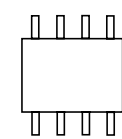
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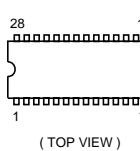
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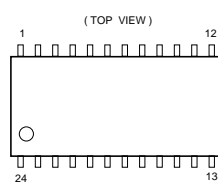
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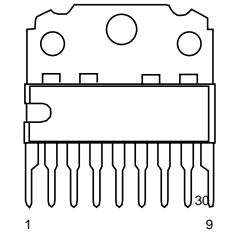
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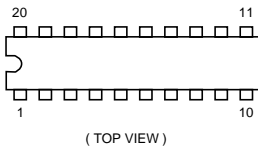
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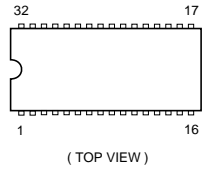
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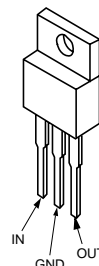
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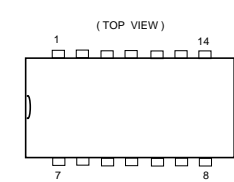
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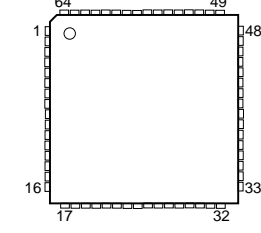
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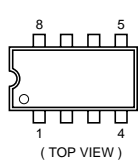
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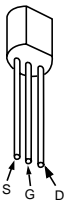
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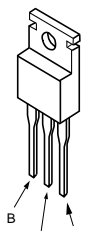
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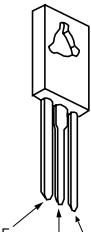
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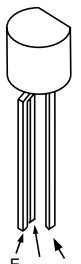
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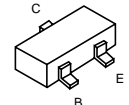
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2SC3840K



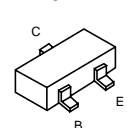
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BF199-AMMO



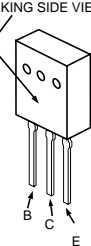
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DTC114EK  
DTC114YKA-T146  
DTC123EK  
DTC123EK-T146  
DTC124EKA-T146



DTC144EK  
DTC144EK-T146  
2SA1037K-T-146-R  
2SA1162-G  
2SC2412K-QR  
2SC2412K-T-146-R



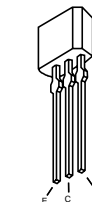
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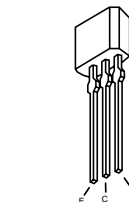
BF421-AMMO



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DTA144ESA-TP  
DTC114ESA-TP  
DTC144ESA-TP  
2SA1175-HFE  
2SA733-K



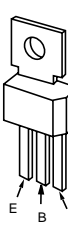
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2SA933AS-QRT  
2SA933S-RT  
2SC1740S-RT  
2SC2785-HFE



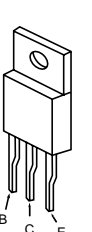
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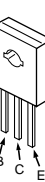
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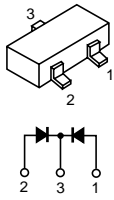


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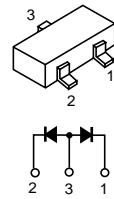




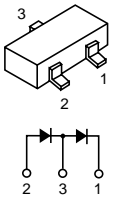
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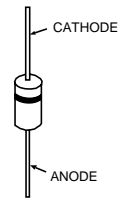
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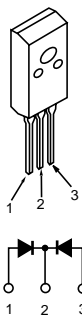
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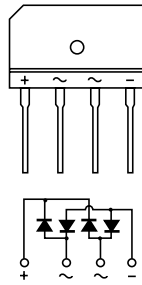
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D1NS4-TR  
EGP20G  
EL1Z  
GP08D  
GP08DPKG23  
R2K-V1



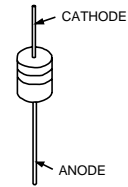
D10SC4M-F  
D10SC6M



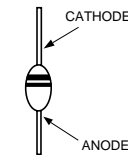
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RBA-402L



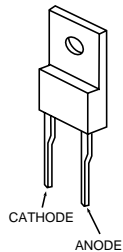
ERA38-06TP1  
ERA82-004TP1  
GP08DPKG23  
MTZJ-T-77-12  
MTZJ-T-77-15  
MTZJ-T-77-2.2A  
MTZJ-T-77-3-3B  
MTZJ-T-77-3.6A  
MTZJ-T-77-4.7B  
MTZJ-T-77-5.6B  
MTZJ-T-77-6.8  
MTZJ-T-77-7.5B



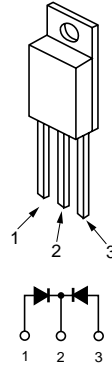
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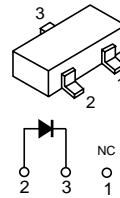
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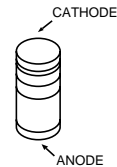
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ESAC39M-06CF38



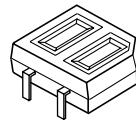
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MA3033L-TX  
MA3056M-TX  
MA3062M-TX  
MA3030-H-(TX)



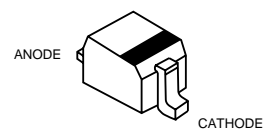
MA3051L-TX



MA73-TX



1SS355TE-17  
RD12SB2  
UDZ-TE-17-3.9B  
UDZ-TE-17-4.7B  
UDZ-TE-17-6.2B  
UDZ-TE-17-6.8B  
UDZ-TE-12B



## SECTION 6 EXPLODED VIEWS

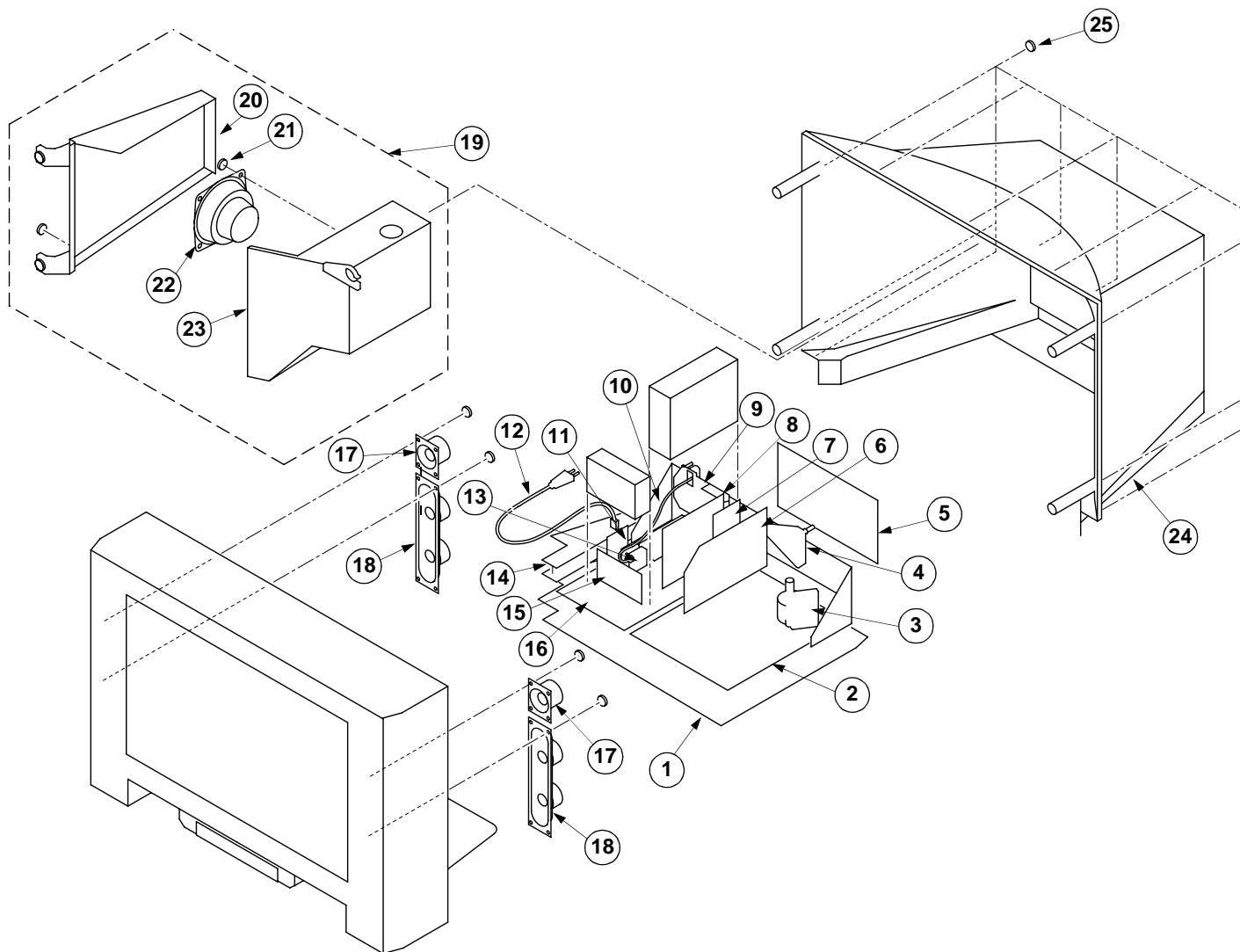
### NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

**Note :** Les composants identifiés par une trame et par une marque Δ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces du numéro spécifié.

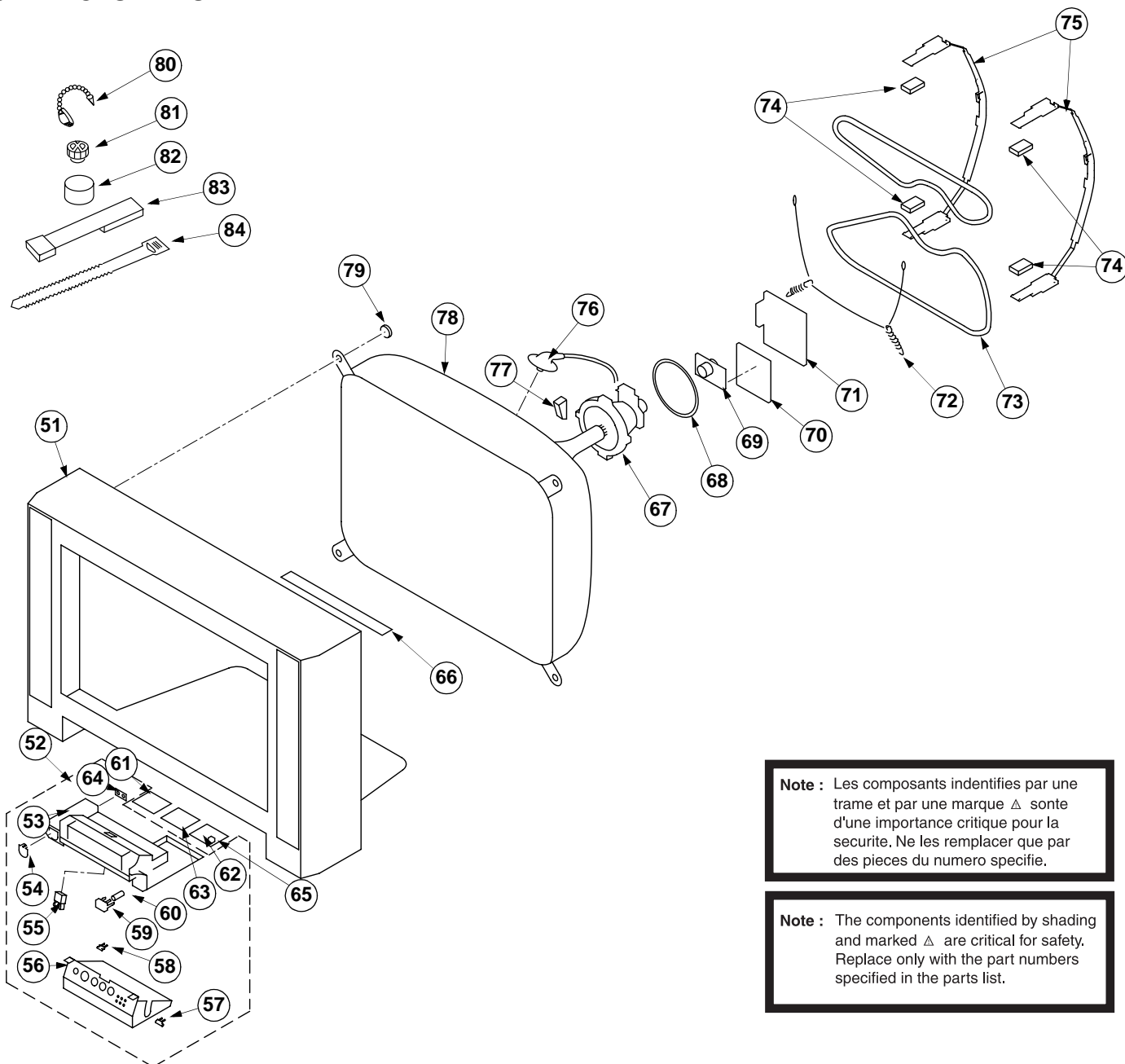
**Note :** The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

### 6-1. CHASSIS



REF. NO.	PART. NO	DESCRIPTION	REMARK	REF. NO.	PART. NO	DESCRIPTION	REMARK
1	*4-205-196-31	MAIN BRACKET (AE-5)		14	*A-1624-086-A	F1 BOARD, COMPLETE	
2	*A-1640-398-A	D BOARD, COMPLETE		15	*A-1634-057-A	M1 BOARD, COMPLETE	
3	Δ 1-453-340-11	TRANSFORMER ASSY, FLYBACK (NX4522//U214)		16	*A-1631-115-A	A BOARD, COMPLETE (KV-29FQ65B)	
4	*4-204-476-04	BRACKET, J1			*A-1631-114-A	A BOARD, COMPLETE (KV-29FQ65E/29FQ65K)	
5	*A-1651-137-A	J BOARD, COMPLETE		17	1-542-437-11	SPEAKER (2CM)	
6	*A-1640-380-A	D1 BOARD, COMPLETE		18	1-542-436-11	SPEAKER (24X4CM)	
7	*A-1640-381-A	E BOARD, COMPLETE		19	*A-1678-191-A	WOOFER ASSY (SP)	20-23
8	*A-1620-132-A	B2 BOARD, COMPLETE		20	4-204-775-01	BAFFLE, WOOFER	
9	*4-204-477-04	BRACKET, J2		21	7-685-663-71	SCREW + BVTP 4X16 TYPE IT-3	
10	1-790-082-11	CABLE, RF		22	1-529-417-11	SPEAKER (8CM)	
11	*1-555-716-51	CABLE, PIN		23	4-204-776-01	BOX, WOOFER	
12	Δ 1-690-270-21	CORD, POWER (WITH CONNECTOR)		24	4-205-448-01	COVER, REAR	
13	1-693-339-11	TUNER/VIF (FR) (KV-29FQ65B)		25	7-685-663-79	SCREW + BVTP 4X16 TYPE 2 IT-3	
	1-693-338-11	TUNER/VIF (AEP) (KV-29FQ65E/29FQ65K)					

## 6-2. PICTURE TUBE



REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
51	X-4200-603-2	BEZNET ASSY		64	4-205-464-01	GUIDE, LIGHT	
52	A-1610-073-A	FRONT CONTROL ASSY	53-64	65	Δ 1-571-433-31	SWITCH, PUSH (AC POWER)	
53	*4-205-460-01	BRACKET, CONTROL		66	4-204-666-01	SHEET, BLOTING	
54	4-205-463-01	WINDOW, ORNAMENTAL		67	Δ 8-451-504-31	DEFLECTION YOKE (Y29RSC-S)	
55	4-047-464-01	CATCHER, PUSH		68	1-452-896-11	COIL, NA ROTATION (RT200)	
56	*4-205-732-11	DOOR PAINTED		69	Δ 8-453-011-11	NECK ASSY, (NA299-M)	
57	3-022-410-01	DAMPER		70	*A-1644-108-A	VM BOARD, COMPLETE	
58	3-703-035-11	SHAFT, LID		71	*A-1638-139-A	C BOARD, COMPLETE	
59	4-205-462-01	BUTTON, POWER		72	4-369-318-21	SPRING, TENSION	
60	4-204-426-01	SPRING		73	Δ 1-416-654-11	COIL, DEMAGNETIC	
61	*A-1646-211-A	H6 BOARD, COMPLETE		74	4-203-390-11	CUSHION, DGC	
62	*A-1624-085-A	F3 BOARD, COMPLETE		75	4-204-768-01	HOLDER, DGC (29")	
63	*A-1646-210-A	H5 BOARD, COMPLETE		76	Δ 1-251-807-22	CAP ASSY, HIGH-VOLTAGE	

REF.NO.	PART.NO	DESCRIPTION	REMARK
77	3-704-495-01	SPACER, DY	
78	△ 8-735-053-05	PICTURE TUBE (M68LNH060X)	
79	4-046-765-12	SCREW, TAPPING 7+CROWN WASHER	
80	4-308-870-00	CLIP, LEAD WIRE	

REF.NO.	PART.NO	DESCRIPTION	REMARK
81	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM	
82	1-452-032-00	MAGNET, DISK; 10MM	
83	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
84	3-701-007-00	BAND, BINDING	

## SECTION 7 ELECTRICAL PARTS LIST

### PARTS LISTING TABLE OF CONTENTS

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<b>A BOARD COMMON Parts List :</b> Parts common to all models listed in this manual .....	98
<b>A BOARD VARIANT Parts List :</b> Parts that belong only to the model specified	
<u>Model</u>	
KV-29FQ65B, KV-29FQ65E, KV-29FQ65K, .....	100
<b>M1 BOARD COMPLETE Parts List :</b> .....	100
<b>C BOARD COMPLETE Parts List :</b> .....	103
<b>D1 BOARD COMPLETE Parts List :</b> .....	104
<b>E BOARD COMPLETE Parts List :</b> .....	109
<b>D BOARD COMPLETE Parts List :</b> .....	110
<b>J BOARD COMPLETE Parts List :</b> .....	115
<b>VM BOARD COMPLETE Parts List :</b> .....	121
<b>MISCELLANEOUS :</b> .....	122
<b>ACCESSORIES AND PACKAGING MATERIALS :</b> .....	122

**Note :** Refer to the designated variant parts list when seeking a part indicated by an asterisk (\*)

REF.NO.

PART.NO



DESCRIPTION

REMARK

\*A-1624-085-A

F3 Board, Complete

< CONNECTOR >

CN7700	 *1-695-292-11	PIN, CONNECTOR (POWER)
CN7733	 *1-580-844-11	PIN, CONNECTOR (POWER)

< SWITCH >

S7751	 1-571-433-31	SWITCH, PUSH (AC POWER)
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\*A-1646-210-A

H5 Board, Complete

< CAPACITOR >

C7900	1-101-810-00	CERAMIC	100PF	5.00%	500V
C7901	1-101-810-00	CERAMIC	100PF	5.00%	500V
C7925	1-137-372-11	MYLAR	0.022UF	5.00%	50V
C7926	1-137-372-11	MYLAR	0.022UF	5.00%	50V

< CONNECTOR >

CN7102	*1-564-518-11	PLUG, CONNECTOR 3P
CN7103	*1-564-526-11	PLUG, CONNECTOR 11P

< SOCKET >

J7900	1-794-442-11	TERMINAL BLOCK (LIGHT ANGLE), S
J7925	1-785-448-11	JACK

< COIL >

L7925	1-414-183-41	INDUCTOR	10UH
L7926	1-414-183-41	INDUCTOR	10UH

< RESISTOR >

R7100	1-249-425-11	CARBON	4.7K	5%	1/4W
R7101	1-249-429-11	CARBON	10K	5%	1/4W
R7102	1-249-421-11	CARBON	2.2K	5%	1/4W
R7103	1-249-429-11	CARBON	10K	5%	1/4W
R7104	1-249-425-11	CARBON	4.7K	5%	1/4W
R7105	1-249-421-11	CARBON	2.2K	5%	1/4W
R7900	1-535-143-61	LEAD, JUMPER (5.00MM)			
R7901	1-249-417-11	CARBON	1K	5%	1/4W
R7902	1-247-895-91	CARBON	470K	5%	1/4W
R7903	1-247-895-91	CARBON	470K	5%	1/4W
R7904	1-535-143-61	LEAD, JUMPER (5.00MM)			
R7905	1-249-417-11	CARBON	1K	5%	1/4W
R7906	1-535-143-61	LEAD, JUMPER (5.00MM)			

REF.NO.

PART.NO

DESCRIPTION

REMARK

< SWITCH >

S7100	1-771-947-11	SWITCH, TACTILE
S7101	1-771-947-11	SWITCH, TACTILE
S7102	1-771-947-11	SWITCH, TACTILE

\*A-1646-211-A

H6 Board, Complete

< CAPACITOR >

C7150	1-126-969-11	ELECT	220UF	20.00%	50V
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< CONNECTOR >

CN7100	*1-564-519-11	PLUG, CONNECTOR 4P
--------	---------------	--------------------

< DIODE >

D7150	8-719-080-92	DIODE SLA-570LT3F
-------	--------------	-------------------

< IC >

IC7150	8-749-014-59	IC TSOP1740KS1
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< RESISTOR >

R7150	1-249-409-11	CARBON	220	5%	1/4W
R7151	1-249-411-11	CARBON	330	5%	1/4W

\*A-1620-132-A

B2 Board, Complete

< CAPACITOR >

C3300	1-126-933-11	ELECT	100UF	20.00%	16V
C3301	1-126-933-11	ELECT	100UF	20.00%	16V
C3302	1-126-933-11	ELECT	100UF	20.00%	16V
C3307	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C3308	1-126-964-11	ELECT	10UF	20.00%	50V
C3309	1-126-964-11	ELECT	10UF	20.00%	50V
C3310	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C3311	1-126-964-11	ELECT	10UF	20.00%	50V
C3312	1-126-964-11	ELECT	10UF	20.00%	50V
C3313	1-163-809-11	CERAMIC CHIP	0.047UF	10.00%	25V
C3314	1-163-809-11	CERAMIC CHIP	0.047UF	10.00%	25V
C3315	1-163-809-11	CERAMIC CHIP	0.047UF	10.00%	25V
C3316	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C3319	1-126-964-11	ELECT	10UF	20.00%	50V
C3320	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C3321	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C3322	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C3324	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C3325	1-126-964-11	ELECT	10UF	20.00%	50V
C3326	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
C3327	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	< TRANSISTOR >			
C3328	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	Q3300	1-801-806-11	TRANSISTOR DTC144EKA-T146	
C3329	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	Q3303	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
C3330	1-126-964-11	ELECT 10UF	20.00% 50V	Q3304	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
C3331	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V	Q3305	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
C3333	1-126-964-11	ELECT 10UF	20.00% 50V	< RESISTOR >			
C3335	1-126-964-11	ELECT 10UF	20.00% 50V	R3302	1-216-025-91	RES-CHIP 100 5% 1/10W	
C3337	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	R3303	1-216-025-91	RES-CHIP 100 5% 1/10W	
C3339	1-163-231-11	CERAMIC CHIP 15PF	5.00% 50V	R3305	1-216-295-91	SHORT 0	
C3340	1-163-231-11	CERAMIC CHIP 15PF	5.00% 50V	R3306	1-216-295-91	SHORT 0	
C3345	1-163-231-11	CERAMIC CHIP 15PF	5.00% 50V	R3307	1-216-295-91	SHORT 0	
C3346	1-163-231-11	CERAMIC CHIP 15PF	5.00% 50V	R3312	1-216-025-91	RES-CHIP 100 5% 1/10W	
C3347	1-163-235-11	CERAMIC CHIP 22PF	5.00% 50V	R3314	1-216-061-00	RES-CHIP 3.3K 5% 1/10W	
C3348	1-163-235-11	CERAMIC CHIP 22PF	5.00% 50V	R3315	1-216-041-00	RES-CHIP 470 5% 1/10W	
C3351	1-126-964-11	ELECT 10UF	20.00% 50V	R3316	1-216-041-00	RES-CHIP 470 5% 1/10W	
C3353	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	R3317	1-216-041-00	RES-CHIP 470 5% 1/10W	
C3354	1-104-664-11	ELECT 47UF	20.00% 16V	R3318	1-216-041-00	RES-CHIP 470 5% 1/10W	
C3355	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	R3319	1-216-041-00	RES-CHIP 470 5% 1/10W	
C3356	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	R3320	1-216-041-00	RES-CHIP 470 5% 1/10W	
C3359	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	R3323	1-216-049-91	RES-CHIP 1K 5% 1/10W	
C3362	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	R3324	1-216-071-00	RES-CHIP 8.2K 5% 1/10W	
C3363	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	R3325	1-216-049-91	RES-CHIP 1K 5% 1/10W	
< CONNECTOR >				R3331	1-216-047-91	RES-CHIP 820 5% 1/10W	
CN3100	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P		R3332	1-216-047-91	RES-CHIP 820 5% 1/10W	
< FILTER >				R3336	1-216-033-00	RES-CHIP 220 5% 1/10W	
FL3300	1-233-736-21	FILTER, EMI		R3337	1-216-089-91	RES-CHIP 47K 5% 1/10W	
FL3301	1-233-736-21	FILTER, EMI		R3338	1-412-006-31	INDUCTOR CHIP 10UH	
FL3302	1-233-736-21	FILTER, EMI		R3339	1-412-006-31	INDUCTOR CHIP 10UH	
< IC >				R3341	1-216-041-00	RES-CHIP 470 5% 1/10W	
IC3300	8-759-991-41	IC L78L05ACZ-AP		R3342	1-216-051-00	RES-CHIP 1.2K 5% 1/10W	
IC3301	8-759-295-09	IC TLC2932IPW-E20		R3343	1-216-051-00	RES-CHIP 1.2K 5% 1/10W	
IC3302	8-759-546-03	IC SAA4977H-518		R3344	1-412-006-31	INDUCTOR CHIP 10UH	
IC3304	8-759-546-72	IC SAA4956TJ-V1-518		R3348	1-216-021-00	RES-CHIP 68 5% 1/10W	
< COIL >				R3350	1-216-051-00	RES-CHIP 1.2K 5% 1/10W	
L3302	1-412-029-11	INDUCTOR CHIP 10UH		R3360	1-216-025-91	RES-CHIP 100 5% 1/10W	
L3303	1-412-029-11	INDUCTOR CHIP 10UH		R3361	1-216-025-91	RES-CHIP 100 5% 1/10W	
L3304	1-412-029-11	INDUCTOR CHIP 10UH		R3364	1-216-295-91	SHORT 0	
L3305	1-412-029-11	INDUCTOR CHIP 10UH		R3370	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
L3306	1-412-029-11	INDUCTOR CHIP 10UH		R3376	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
L3307	1-412-029-11	INDUCTOR CHIP 10UH		R3377	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
L3309	1-412-029-11	INDUCTOR CHIP 10UH		R3380	1-216-049-91	RES-CHIP 1K 5% 1/10W	
L3313	1-412-029-11	INDUCTOR CHIP 10UH		R3383	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
				R3384	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
				R3385	1-216-033-00	RES-CHIP 220 5% 1/10W	
				R3389	1-216-049-91	RES-CHIP 1K 5% 1/10W	
				R3390	1-216-049-91	RES-CHIP 1K 5% 1/10W	

REF.NO.	PART.NO	DESCRIPTION	REMARK
R3391	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R3392	1-216-025-91	RES-CHIP 100 5% 1/10W	
R3393	1-216-025-91	RES-CHIP 100 5% 1/10W	
R3394	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R3395	1-216-049-91	RES-CHIP 1K 5% 1/10W	
R3396	1-216-295-91	SHORT 0	
R3397	1-216-295-91	SHORT 0	
R3398	1-216-049-91	RES-CHIP 1K 5% 1/10W	

### \*A-1624-086-A F1 Board, Complete

\*4-374-846-01 COVER, CAPACITOR, CAP TYPE

< CAPACITOR >

C7626  $\Delta$  1-136-527-12 FILM 0.47UF 20.00% 300V

< CONNECTOR >

CN7611  $\Delta$  \*1-580-843-11 PIN, CONNECTOR (POWER)

CN7622 1-695-915-11 TAB (CONTACT)

CN7633  $\Delta$  \*1-580-843-11 PIN, CONNECTOR (POWER)

CN7655 1-695-915-11 TAB (CONTACT)

< FUSE >

F7626  $\Delta$  1-576-232-11 FUSE (H.B.C.) 5A/250V

$\Delta$  \*1-533-725-11 HOLDER, FUSE (F7626)

< RESISTOR >

R7626  $\Delta$  1-202-885-91 SOLID 1M 20% 1/2W

R7627  $\Delta$  1-220-797-11 CEMENTED 0.47 5% 10W

< TRANSFORMER >

LF7627  $\Delta$  1-433-488-11 TRANSFORMER, LINE FILTER

< VARISTOR >

VD7626  $\Delta$  1-803-830-31 VARISTOR (ERZV14D621)

**\*A-1631-115-A A Board, Complete (KV-29FQ65B)**

**\*A-1631-114-A A Board, Complete (KV-29FQ65E/29FQ65K)**

### A Board, Common Parts

4-382-854-11 SCREW (M3X10), P, SW (+)

< CAPACITOR >

C1100 1-104-664-11 ELECT 47UF 20.00% 25V

C1101 1-126-943-11 ELECT 2200UF 20.00% 25V

REF.NO.	PART.NO	DESCRIPTION	REMARK
C1126	1-162-568-11	CERAMIC CHIP 0.33UF	10.00% 16V
C1127	1-137-194-81	MYLAR 0.47UF	5.00% 50V
C1128	1-163-135-00	CERAMIC CHIP 560PF	5.00% 50V
C1129	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V
C1130	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C1131	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C1132	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C1133	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1134	1-126-961-11	ELECT 2.2UF	20.00% 50V
C1135	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1136	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1137	1-126-953-11	ELECT 2200UF	20.00% 35V
C1138	1-126-953-11	ELECT 2200UF	20.00% 35V
C1140	1-111-216-91	ELECT 150UF	20.00% 63V
C1141	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C1142	1-130-777-00	MYLAR 0.1UF	5.00% 63V
C1151	1-162-568-11	CERAMIC CHIP 0.33UF	10.00% 16V
C1152	1-137-194-81	MYLAR 0.47UF	5.00% 50V
C1153	1-163-135-00	CERAMIC CHIP 560PF	5.00% 50V
C1154	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V
C1155	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C1156	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C1157	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C1158	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1159	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1160	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1162	1-111-216-91	ELECT 150UF	20.00% 63V
C1163	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C1164	1-130-777-00	MYLAR 0.1UF	5.00% 63V
C1177	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1178	1-126-964-11	ELECT 10UF	20.00% 50V
C1179	1-126-964-11	ELECT 10UF	20.00% 50V
C1180	1-126-952-11	ELECT 1000UF	20.00% 35V
C1181	1-126-952-11	ELECT 1000UF	20.00% 35V
C1182	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1183	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1184	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C1226	1-104-661-91	ELECT 330UF	20.00% 16V
C1227	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C1326	1-163-059-91	CERAMIC CHIP 0.01UF	10.00% 50V
C1327	1-126-934-11	ELECT 220UF	20.00% 10V
C1328	1-163-117-00	CERAMIC CHIP 100PF	5.00% 50V
C1601	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1602	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1603	1-126-933-11	ELECT 100UF	20.00% 16V
C1604	1-126-933-11	ELECT 100UF	20.00% 16V
C1605	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V



REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
C1607	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	FB1901	1-414-553-11	FERRITE	0UH
C1608	1-126-934-11	ELECT 220UF	20.00% 16V	FB1903	1-414-553-11	FERRITE	0UH
C1610	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	FB1904	1-414-553-11	FERRITE	0UH
C1611	1-126-933-11	ELECT 100UF	20.00% 16V	FB1905	1-414-553-11	FERRITE	0UH
C1612	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	FB1906	1-414-553-11	FERRITE	0UH
C1613	1-126-933-11	ELECT 100UF	20.00% 16V	FB1907	1-414-553-11	FERRITE	0UH
C1615	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V				
C1617	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V		< IC >		
	< CONNECTOR >			IC1126	8-759-544-25	IC TDA7482	
CN1111	*1-564-520-11	PLUG, CONNECTOR 5P		IC1151	8-759-544-25	IC TDA7482	
CN1200	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P		IC1176	8-759-333-24	IC LM1876TF	
CN1401	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P		IC1400	8-752-072-94	IC CXA1875AM-T4	
CN1600	1-900-903-64	CONNECTOR ASSY 20P		IC1601	8-759-574-76	IC KA78R05-SYDTU	
CN1601	1-900-903-64	CONNECTOR ASSY 20P		IC1602	8-759-574-76	IC KA78R05-SYDTU	
CN1602	1-900-903-64	CONNECTOR ASSY 20P		IC1604	8-759-544-13	IC KA78R09-YDTU	
CN1700	*1-564-507-11	PLUG, CONNECTOR 4P		IC1605	8-759-574-75	IC KA78R33-YDTU	
CN1702	*1-564-506-11	PLUG, CONNECTOR 3P			< COIL >		
CN1703	1-764-334-11	PLUG, CONNECTOR 11P		L1126	1-416-857-11	INDUCTOR	65UH
CN1801	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P		L1127	1-414-158-11	INDUCTOR	2.2UH
CN1802	*1-564-506-11	PLUG, CONNECTOR 3P		L1128	1-414-158-11	INDUCTOR	2.2UH
CN1901	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P		L1151	1-416-857-11	INDUCTOR	65UH
CN1902	*1-564-507-11	PLUG, CONNECTOR 4P		L1152	1-414-158-11	INDUCTOR	2.2UH
CN1904	*1-564-506-11	PLUG, CONNECTOR 3P		L1153	1-414-158-11	INDUCTOR	2.2UH
CN1988	*1-564-507-11	PLUG, CONNECTOR 4P		L1326	1-414-183-41	INDUCTOR	10UH
	< DIODE >				< TRANSISTOR >		
D1100	8-719-914-43	DIODE DAN202K-T-146		Q1100	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
D1101	8-719-914-44	DIODE DAP202K-T-146		Q1101	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
D1102	8-719-914-43	DIODE DAN202K-T-146		Q1201	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
D1103	8-719-914-43	DIODE DAN202K-T-146		Q1202	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
D1104	8-719-914-43	DIODE DAN202K-T-146		Q1204	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
D1201	8-719-976-96	DIODE UDZ-TE-17-4.7B		Q1226	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
D1401	8-719-056-82	DIODE UDZ-TE-17-6.2B		Q1227	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
D1402	8-719-056-82	DIODE UDZ-TE-17-6.2B		Q1229	8-729-027-38	TRANSISTOR DTA144EKA-T146	
D1405	8-719-914-44	DIODE DAP202K-T-146		Q1326	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
D1406	8-719-914-43	DIODE DAN202K-T-146		Q1327	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
D1407	8-719-069-55	DIODE UDZS-TE17-5.6B		Q1328	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
D1408	8-719-069-55	DIODE UDZS-TE17-5.6B		Q1329	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
D1626	8-719-914-43	DIODE DAN202K-T-146		Q1601	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
D1627	8-719-914-43	DIODE DAN202K-T-146		Q1626	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
D1629	8-719-914-43	DIODE DAN202K-T-146			< RESISTOR >		
	< FERRITE BEAD >			JR1203	1-216-296-91	SHORT	0
FB1126	1-535-143-61	LEAD, JUMPER (5.00MM)		JR1204	1-216-296-91	SHORT	0
FB1127	1-410-397-21	FERRITE 1.1UH		JR1601	1-216-296-91	SHORT	0
FB1151	1-535-143-61	LEAD, JUMPER (5.00MM)					
FB1152	1-410-397-21	FERRITE 1.1UH					

REF.NO.	PART.NO	DESCRIPTION	REMARK			REF.NO.	PART.NO	DESCRIPTION	REMARK		
R1001	1-216-295-91	SHORT	0			R1334	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R1002	1-216-295-91	SHORT	0			R1335	1-216-025-91	RES-CHIP	100	5%	1/10W
R1003	1-216-295-91	SHORT	0			R1336	1-216-041-00	RES-CHIP	470	5%	1/10W
R1004	1-216-295-91	SHORT	0			R1337	1-216-041-00	RES-CHIP	470	5%	1/10W
R1005	1-216-295-91	SHORT	0			R1338	1-216-001-00	RES-CHIP	10	5%	1/10W
R1006	1-216-295-91	SHORT	0			R1339	1-216-041-00	RES-CHIP	470	5%	1/10W
R1100	1-216-025-91	RES-CHIP	100	5%	1/10W	R1340	1-216-043-91	RES-CHIP	560	5%	1/10W
R1101	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R1342	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1103	1-216-089-91	RES-CHIP	47K	5%	1/10W	R1403	1-216-295-91	SHORT	0		
R1104	1-216-296-91	SHORT	0			R1404	1-216-295-91	SHORT	0		
R1126	1-216-631-11	METAL CHIP	150	0.5%	1/10W	R1405	1-216-025-91	RES-CHIP	100	5%	1/10W
R1127	1-216-073-00	RES-CHIP	10K	5%	1/10W	R1407	1-216-025-91	RES-CHIP	100	5%	1/10W
R1128	1-216-041-00	RES-CHIP	470	5%	1/10W	R1408	1-216-025-91	RES-CHIP	100	5%	1/10W
R1151	1-216-631-11	METAL CHIP	150	0.5%	1/10W	R1409	1-216-025-91	RES-CHIP	100	5%	1/10W
R1152	1-216-075-00	RES-CHIP	12K	5%	1/10W	R1410	1-216-025-91	RES-CHIP	100	5%	1/10W
R1153	1-216-041-00	RES-CHIP	470	5%	1/10W	R1411	1-216-295-91	SHORT	0		
R1176	1-216-063-91	RES-CHIP	3.9K	5%	1/10W	R1412	1-216-295-91	SHORT	0		
R1179	1-216-357-00	METAL OXIDE	4.7	5%	1W	R1601	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1180	1-216-081-00	RES-CHIP	22K	5%	1/10W	R1602	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R1181	1-216-045-00	RES-CHIP	680	5%	1/10W	R1603	1-216-025-91	RES-CHIP	100	5%	1/10W
R1182	1-216-081-00	RES-CHIP	22K	5%	1/10W	R1605	1-216-049-91	RES-CHIP	1K	5%	1/10W
R1183	1-216-045-00	RES-CHIP	680	5%	1/10W	R1609	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1184	1-216-089-91	RES-CHIP	47K	5%	1/10W	R1610	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1185	1-216-089-91	RES-CHIP	47K	5%	1/10W	R1616	1-216-304-11	RES-CHIP	3.3	5%	1/10W
R1201	1-216-089-91	RES-CHIP	47K	5%	1/10W	R1617	1-216-304-11	RES-CHIP	3.3	5%	1/10W
R1202	1-216-083-00	RES-CHIP	27K	5%	1/10W	R1618	1-216-295-91	SHORT	0		
R1203	1-216-083-00	RES-CHIP	27K	5%	1/10W	R1621	1-216-027-00	RES-CHIP	120	5%	1/10W
R1204	1-216-071-00	RES-CHIP	8.2K	5%	1/10W	R1622	1-216-029-00	RES-CHIP	150	5%	1/10W
R1205	1-216-089-91	RES-CHIP	47K	5%	1/10W	R1623	1-216-033-00	RES-CHIP	220	5%	1/10W
R1206	1-216-073-00	RES-CHIP	10K	5%	1/10W	R1625	1-216-295-91	SHORT	0		
R1208	1-216-089-91	RES-CHIP	47K	5%	1/10W	<b>A Board, Variant Parts    KV-29FQ65B/29FQ65E/29FQ65K</b>					
R1209	1-216-065-91	RES-CHIP	4.7K	5%	1/10W						
R1210	1-216-089-91	RES-CHIP	47K	5%	1/10W	< TUNER >					
R1227	1-216-073-00	RES-CHIP	10K	5%	1/10W	TU1326	1-693-339-11	TUNER/VIF (FR)	(KV-29FQ65B)		
R1228	1-216-073-00	RES-CHIP	10K	5%	1/10W		1-693-338-11	TUNER/VIF (AEP)	(KV-29FQ65E/29FQ65K)		
R1229	1-216-073-00	RES-CHIP	10K	5%	1/10W	<b>*A-1634-057-A    M1 Board, Complete</b>					
R1230	1-216-055-00	RES-CHIP	1.8K	5%	1/10W						
R1232	1-216-295-91	SHORT	0			< CAPACITOR >					
R1233	1-216-049-91	RES-CHIP	1K	5%	1/10W	C9100	1-115-340-11	CERAMIC CHIP	0.22UF	10.00%	25V
R1326	1-216-025-91	RES-CHIP	100	5%	1/10W	C9101	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
R1327	1-216-025-91	RES-CHIP	100	5%	1/10W	C9102	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
R1328	1-216-073-00	RES-CHIP	10K	5%	1/10W	C9104	1-104-664-11	ELECT	47UF	20.00%	25V
R1329	1-216-025-91	RES-CHIP	100	5%	1/10W	C9105	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
R1330	1-216-041-00	RES-CHIP	470	5%	1/10W						
R1331	1-216-041-00	RES-CHIP	470	5%	1/10W	C9110	1-165-321-11	CERAMIC CHIP	0.68UF	10.00%	16V
R1332	1-216-041-00	RES-CHIP	470	5%	1/10W	C9111	1-164-157-11	CERAMIC CHIP	0.068UF	10.00%	25V
R1333	1-216-075-00	RES-CHIP	12K	5%	1/10W	C9112	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
C9113	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D9103	8-719-988-61	DIODE 1SS355TE-17	
C9114	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D9104	8-719-056-83	DIODE UDZ-TE-17-6.8B	
C9115	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V	D9105	8-719-914-43	DIODE DAN202K-T-146	
C9117	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D9107	8-719-025-31	DIODE 02CZ5.6-TE85L	
C9118	1-104-664-11	ELECT 47UF	20.00% 25V			< FILTER >	
C9119	1-163-259-91	CERAMIC CHIP 220PF	5.00% 50V				
C9121	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	FL9101	1-236-071-11	ENCAPSULATED COMPONENT	
C9122	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V	FL9500	1-236-071-11	ENCAPSULATED COMPONENT	
C9123	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	FL9501	1-236-071-11	ENCAPSULATED COMPONENT	
C9124	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V			< IC >	
C9125	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V				
C9126	1-163-105-00	CERAMIC CHIP 33PF	5.00% 50V	IC9100	8-759-988-13	IC LM393PS-E20	
C9127	1-163-105-00	CERAMIC CHIP 33PF	5.00% 50V	IC9104	8-759-259-18	IC MB3793-42PNF-ER	
C9128	1-163-105-00	CERAMIC CHIP 33PF	5.00% 50V	IC9105	8-759-544-30	IC SAB-C161R1-LM	
C9129	1-163-105-00	CERAMIC CHIP 33PF	5.00% 50V	IC9107	8-759-395-27	IC TC55257DFTL-70V-EL	
				IC9108	8-759-564-06	IC M24C32-MN6T	
C9130	1-163-105-00	CERAMIC CHIP 33PF	5.00% 50V				
C9131	1-163-105-00	CERAMIC CHIP 33PF	5.00% 50V	IC9109	8-759-597-95	IC M27C800-100K1-AE513	
C9132	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	IC9110	8-759-559-96	IC HEF4094BT	
C9400	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V	IC9500	8-759-991-85	IC 74F00SJX	
C9500	1-104-664-11	ELECT 47UF	20.00% 25V	IC9501	8-759-666-17	IC MSM5116400D-60SJR1	
				IC9502	8-759-665-84	IC SDA5275-3PC02-22	
C9502	1-104-664-11	ELECT 47UF	20.00% 25V				
C9503	1-126-964-11	ELECT 10UF	20.00% 50V			< COIL >	
C9504	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V				
C9505	1-104-665-11	ELECT 100UF	20.00% 25V	L9400	1-412-029-11	INDUCTOR CHIP 10UH	
C9506	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	L9401	1-412-029-11	INDUCTOR CHIP 10UH	
C9507	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V			< TRANSISTOR >	
C9508	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V				
C9509	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	Q9100	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
C9510	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V	Q9101	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
C9511	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	Q9102	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
				Q9103	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
C9512	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	Q9105	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
C9513	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V				
C9514	1-163-235-11	CERAMIC CHIP 22PF	5.00% 50V	Q9106	8-729-027-46	TRANSISTOR DTC114YKA-T146	
C9515	1-163-235-11	CERAMIC CHIP 22PF	5.00% 50V	Q9107	8-729-027-46	TRANSISTOR DTC114YKA-T146	
C9516	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	Q9108	8-729-027-46	TRANSISTOR DTC114YKA-T146	
				Q9109	8-729-027-46	TRANSISTOR DTC114YKA-T146	
C9517	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V	Q9110	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
C9518	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V				
C9519	1-126-964-11	ELECT 10UF	20.00% 50V	Q9500	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
C9520	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	Q9501	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
				Q9502	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
				Q9503	1-801-806-11	TRANSISTOR DTC144EKA-T146	
				Q9504	1-801-806-11	TRANSISTOR DTC144EKA-T146	
						< RESISTOR >	

REF.NO.	PART.NO	DESCRIPTION	REMARK			REF.NO.	PART.NO	DESCRIPTION	REMARK		
R9104	1-216-073-00	RES-CHIP	10K	5%	1/10W	R9177	1-216-025-91	RES-CHIP	100	5%	1/10W
R9105	1-216-073-00	RES-CHIP	10K	5%	1/10W	R9178	1-216-025-91	RES-CHIP	100	5%	1/10W
R9106	1-216-073-00	RES-CHIP	10K	5%	1/10W	R9179	1-216-097-91	RES-CHIP	100K	5%	1/10W
R9107	1-216-025-91	RES-CHIP	100	5%	1/10W	R9184	1-216-025-91	RES-CHIP	100	5%	1/10W
R9108	1-216-025-91	RES-CHIP	100	5%	1/10W	R9185	1-216-025-91	RES-CHIP	100	5%	1/10W
R9109	1-216-073-00	RES-CHIP	10K	5%	1/10W	R9186	1-216-025-91	RES-CHIP	100	5%	1/10W
R9110	1-216-081-00	RES-CHIP	22K	5%	1/10W	R9187	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R9111	1-216-025-91	RES-CHIP	100	5%	1/10W	R9188	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9112	1-216-025-91	RES-CHIP	100	5%	1/10W	R9189	1-216-025-91	RES-CHIP	100	5%	1/10W
R9113	1-216-033-00	RES-CHIP	220	5%	1/10W	R9191	1-216-025-91	RES-CHIP	100	5%	1/10W
R9114	1-216-083-00	RES-CHIP	27K	5%	1/10W	R9192	1-216-025-91	RES-CHIP	100	5%	1/10W
R9115	1-216-081-00	RES-CHIP	22K	5%	1/10W	R9193	1-216-097-91	RES-CHIP	100K	5%	1/10W
R9116	1-216-073-00	RES-CHIP	10K	5%	1/10W	R9194	1-216-097-91	RES-CHIP	100K	5%	1/10W
R9117	1-216-073-00	RES-CHIP	10K	5%	1/10W	R9195	1-216-097-91	RES-CHIP	100K	5%	1/10W
R9119	1-216-073-00	RES-CHIP	10K	5%	1/10W	R9196	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9120	1-216-073-00	RES-CHIP	10K	5%	1/10W	R9197	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9121	1-216-017-91	RES-CHIP	47	5%	1/10W	R9500	1-216-295-91	SHORT	0		
R9122	1-216-049-91	RES-CHIP	1K	5%	1/10W	R9501	1-216-295-91	SHORT	0		
R9123	1-216-073-00	RES-CHIP	10K	5%	1/10W	R9502	1-216-295-91	SHORT	0		
R9127	1-216-049-91	RES-CHIP	1K	5%	1/10W	R9504	1-216-041-00	RES-CHIP	470	5%	1/10W
R9128	1-216-097-91	RES-CHIP	100K	5%	1/10W	R9505	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R9135	1-216-295-91	SHORT	0			R9506	1-216-073-00	RES-CHIP	10K	5%	1/10W
R9138	1-216-049-91	RES-CHIP	1K	5%	1/10W	R9507	1-216-097-91	RES-CHIP	100K	5%	1/10W
R9140	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R9508	1-216-017-91	RES-CHIP	47	5%	1/10W
R9141	1-216-049-91	RES-CHIP	1K	5%	1/10W	R9509	1-216-049-91	RES-CHIP	1K	5%	1/10W
R9142	1-216-041-00	RES-CHIP	470	5%	1/10W	R9510	1-216-017-91	RES-CHIP	47	5%	1/10W
R9143	1-216-049-91	RES-CHIP	1K	5%	1/10W	R9511	1-216-049-91	RES-CHIP	1K	5%	1/10W
R9144	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R9512	1-216-017-91	RES-CHIP	47	5%	1/10W
R9145	1-216-049-91	RES-CHIP	1K	5%	1/10W	R9513	1-216-017-91	RES-CHIP	47	5%	1/10W
R9146	1-216-049-91	RES-CHIP	1K	5%	1/10W	R9514	1-216-017-91	RES-CHIP	47	5%	1/10W
R9147	1-216-049-91	RES-CHIP	1K	5%	1/10W	R9515	1-216-295-91	SHORT	0		
R9148	1-216-073-00	RES-CHIP	10K	5%	1/10W	R9516	1-216-295-91	SHORT	0		
R9149	1-216-025-91	RES-CHIP	100	5%	1/10W	R9517	1-216-295-91	SHORT	0		
R9150	1-216-025-91	RES-CHIP	100	5%	1/10W	R9518	1-216-049-91	RES-CHIP	1K	5%	1/10W
R9151	1-216-025-91	RES-CHIP	100	5%	1/10W	R9519	1-216-039-00	RES-CHIP	390	5%	1/10W
R9153	1-216-025-91	RES-CHIP	100	5%	1/10W	R9520	1-216-039-00	RES-CHIP	390	5%	1/10W
R9159	1-216-069-00	RES-CHIP	6.8K	5%	1/10W	R9521	1-216-039-00	RES-CHIP	390	5%	1/10W
R9161	1-216-069-00	RES-CHIP	6.8K	5%	1/10W	R9522	1-216-295-91	SHORT	0		
R9162	1-216-069-00	RES-CHIP	6.8K	5%	1/10W	R9523	1-216-295-91	SHORT	0		
R9164	1-216-069-00	RES-CHIP	6.8K	5%	1/10W	R9524	1-216-295-91	SHORT	0		
R9166	1-216-073-00	RES-CHIP	10K	5%	1/10W	R9525	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9168	1-216-069-00	RES-CHIP	6.8K	5%	1/10W	R9526	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9172	1-216-069-00	RES-CHIP	6.8K	5%	1/10W	R9527	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9173	1-216-295-91	SHORT	0			R9528	1-216-025-91	RES-CHIP	100	5%	1/10W
R9174	1-216-025-91	RES-CHIP	100	5%	1/10W	R9529	1-216-025-91	RES-CHIP	100	5%	1/10W
R9175	1-216-025-91	RES-CHIP	100	5%	1/10W	R9530	1-216-025-91	RES-CHIP	100	5%	1/10W
R9176	1-216-025-91	RES-CHIP	100	5%	1/10W	R9531	1-216-295-91	SHORT	0		

The components identified by shading and marked  $\Delta$  are critical for safety  
Replace only with the part number specified.

M1

C

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
< CRYSTAL >				< CONNECTOR >			
X9101	1-781-107-21	VIBRATOR, CERAMIC		CN5400	1-564-511-11	PLUG, CONNECTOR 8P	
X9500	1-760-551-21	VIBRATOR, CERAMIC		CN5511	1-695-915-11	TAB (CONTACT)	
				CN5600	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
<b>*A-1638-139-A C Board, Complete</b>				< DIODE >			
4-382-854-11 SCREW (M3X10), P, SW (+)				D5300	8-719-911-19	DIODE 1SS119-25TD	
< CAPACITOR >				D5302	8-719-901-83	DIODE 1SS83TD	
C5301	1-163-075-00	CERAMIC CHIP 0.047UF	50V	D5325	8-719-911-19	DIODE 1SS119-25TD	
C5302	1-128-528-11	ELECT 470UF	20.00% 16V	D5327	8-719-901-83	DIODE 1SS83TD	
C5303	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V	D5350	8-719-911-19	DIODE 1SS119-25TD	
C5304	1-107-967-11	ELECT 1UF	20.00% 400V	D5351	8-719-991-33	DIODE 1SS133T-77	
C5305	1-136-207-11	MYLAR 0.047UF	10.00% 400V	D5353	8-719-901-83	DIODE 1SS83TD	
C5306	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V	D5375	8-719-991-33	DIODE 1SS133T-77	
C5307	1-163-233-11	CERAMIC CHIP 18PF	5.00% 50V	D5376	8-719-991-33	DIODE 1SS133T-77	
C5308	1-163-089-00	CERAMIC CHIP 6PF	0.50PF 50V	D5377	8-719-908-03	DIODE GP08DPKG23	
C5309	1-163-035-00	CERAMIC CHIP 0.047UF	50V	D5378	8-719-921-88	DIODE MTZJ-T-77-13B	
C5310	1-163-113-00	CERAMIC CHIP 68PF	5.00% 50V	D5379	8-719-982-96	DIODE MTZJ-T-77-2.2A	
C5325	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V	D5380	8-719-982-96	DIODE MTZJ-T-77-2.2A	
C5326	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V	D5381	8-719-031-34	DIODE RGP02-20EG23	
C5328	1-128-528-11	ELECT 470UF	20.00% 16V	< IC >			
C5329	1-107-967-11	ELECT 1UF	20.00% 400V	IC5300	8-759-360-83	IC TDA6111Q/N4	
C5330	1-136-207-11	MYLAR 0.047UF	10.00% 400V	IC5325	8-759-360-83	IC TDA6111Q/N4	
C5331	1-163-089-00	CERAMIC CHIP 6PF	0.50PF 50V	IC5350	8-759-360-83	IC TDA6111Q/N4	
C5332	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V	< SOCKET >			
C5333	1-163-035-00	CERAMIC CHIP 0.047UF	50V	J5375	$\Delta$ 1-540-071-22	SOCKET, CRT	
C5334	1-163-113-00	CERAMIC CHIP 68PF	5.00% 50V	< COIL >			
C5350	1-107-907-11	ELECT 22UF	20.00% 50V	L5300	1-408-591-11	INDUCTOR 1UH	
C5351	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V	L5325	1-408-591-11	INDUCTOR 1UH	
C5352	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V	L5350	1-408-591-11	INDUCTOR 1UH	
C5353	1-163-075-00	CERAMIC CHIP 0.047UF	50V	L5375	1-410-671-31	INDUCTOR 47UH	
C5354	1-128-528-11	ELECT 470UF	20.00% 16V	L5376	1-532-637-00	LINK, IC 1A/150V	
C5355	1-107-967-11	ELECT 1UF	20.00% 400V	L5377	1-414-183-41	INDUCTOR 10UH	
C5356	1-136-207-11	MYLAR 0.047UF	10.00% 400V	< TRANSISTOR >			
C5357	1-163-231-11	CERAMIC CHIP 15PF	5.00% 50V	Q5300	8-729-255-12	TRANSISTOR 2SC25510-TPE2	
C5358	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V	Q5301	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
C5359	1-163-035-00	CERAMIC CHIP 0.047UF	50V	Q5325	8-729-255-12	TRANSISTOR 2SC25510-TPE2	
C5360	1-163-113-00	CERAMIC CHIP 68PF	5.00% 50V	Q5326	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
C5375	1-107-902-11	ELECT 1UF	20.00% 50V	Q5350	8-729-029-56	TRANSISTOR DTA144ESA-TP	
C5376	1-102-106-00	CERAMIC 100PF	10.00% 50V	Q5351	8-729-255-12	TRANSISTOR 2SC25510-TPE2	
C5377	1-104-331-11	CERAMIC 0.0022UF	10.00% 1KV	Q5352	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
C5378	1-162-116-00	CERAMIC 680PF	10.00% 2KV	Q5375	8-729-119-78	TRANSISTOR 2SC1740S-RT	
C5379	1-162-114-00	CERAMIC 0.0047UF	2KV				
C5380	1-107-652-11	ELECT 10UF	20.00% 250V				
C5381	1-117-214-11	CERAMIC 0.001UF	10.00% 2KV				
C5382	1-162-114-00	CERAMIC 0.0047UF	2KV				



REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
C6134	1-102-935-00	CERAMIC 2PF	0.25PF 50V	C6381	1-126-960-11	ELECT 1UF	20.00% 50V
C6199	1-163-229-11	CERAMIC CHIP 12PF	5.00% 50V	C6385	1-104-664-11	ELECT 47UF	20.00% 25V
C6207	1-126-967-11	ELECT 47UF	20.00% 50V	C6386	1-104-664-11	ELECT 47UF	20.00% 25V
C6208	1-126-967-11	ELECT 47UF	20.00% 50V	C6388	1-126-964-11	ELECT 10UF	20.00% 50V
C6209	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V	C6389	1-126-964-11	ELECT 10UF	20.00% 50V
C6210	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V	C6392	1-104-664-11	ELECT 47UF	20.00% 25V
C6250	1-104-664-11	ELECT 47UF	20.00% 16V	C6401	1-126-964-11	ELECT 10UF	20.00% 50V
C6251	1-216-295-91	SHORT 0		C6402	1-107-714-11	ELECT 10UF	20.00% 50V
C6253	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V	C6407	1-136-161-00	MYLAR 0.047UF	5.00% 50V
C6254	1-136-177-00	MYLAR 1UF	5.00% 50V	C6408	1-136-161-00	MYLAR 0.047UF	5.00% 50V
C6255	1-136-177-00	MYLAR 1UF	5.00% 50V	C6409	1-126-964-11	ELECT 10UF	20.00% 50V
C6256	1-163-117-00	CERAMIC CHIP 100PF	5.00% 50V	C6420	1-136-165-00	MYLAR 0.1UF	5.00% 50V
C6257	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V	C6421	1-136-165-00	MYLAR 0.1UF	5.00% 50V
C6258	1-163-127-00	CERAMIC CHIP 270PF	5.00% 50V	< CONNECTOR >			
C6259	1-110-501-11	CERAMIC CHIP 0.33UF	10.00% 16V	CN6502	*1-564-509-11	PLUG, CONNECTOR 6P	
C6260	1-104-664-11	ELECT 47UF	20.00% 16V	CN6600	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
C6261	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V	CN6601	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P	
C6262	1-136-165-00	MYLAR 0.1UF	5.00% 50V	CN6622	*1-568-878-81	PLUG, CONNECTOR 3P	
C6263	1-163-109-00	CERAMIC CHIP 47PF	5.00% 50V	CN6623	*1-568-878-51	PIN, CONNECTOR 3P	
C6264	1-126-964-11	ELECT 10UF	20.00% 50V	CN6633	*1-568-878-61	PLUG, CONNECTOR 3P	
C6306	1-126-964-11	ELECT 10UF	20.00% 50V	< DIODE >			
C6307	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	D6102	8-719-914-43	DIODE DAN202K-T-146	
C6350	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D6104	8-719-914-43	DIODE DAN202K-T-146	
C6351	1-126-967-11	ELECT 47UF	20.00% 50V	D6105	8-719-914-43	DIODE DAN202K-T-146	
C6353	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V	D6107	8-719-914-43	DIODE DAN202K-T-146	
C6354	1-136-159-00	MYLAR 0.033UF	5.00% 50V	D6108	8-719-921-40	DIODE MTZJ-T-77-4.7B	
C6355	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	D6127	8-719-914-43	DIODE DAN202K-T-146	
C6356	1-163-809-11	CERAMIC CHIP 0.047UF	10.00% 25V	D6128	8-719-914-43	DIODE DAN202K-T-146	
C6357	1-136-165-00	MYLAR 0.1UF	5.00% 50V	D6129	8-719-914-43	DIODE DAN202K-T-146	
C6358	1-104-329-11	CERAMIC CHIP 0.1UF	10.00% 50V	D6198	1-535-143-61	LEAD, JUMPER (5.00MM)	
C6359	1-104-329-11	CERAMIC CHIP 0.1UF	10.00% 50V	D6253	8-719-911-19	DIODE 1SS119-25TD	
C6360	1-107-714-11	ELECT 10UF	20.00% 50V	D6254	1-535-143-61	LEAD, JUMPER (5.00MM)	
C6361	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D6255	8-719-914-43	DIODE DAN202K-T-146	
C6362	1-164-182-11	CERAMIC CHIP 0.0033UF	10.00% 50V	D6350	8-719-914-43	DIODE DAN202K-T-146	
C6363	1-104-665-11	ELECT 100UF	20.00% 25V	D6351	8-719-914-43	DIODE DAN202K-T-146	
C6364	1-136-347-11	FILM 0.0047UF	5.00% 630V	D6352	8-719-914-43	DIODE DAN202K-T-146	
C6365	1-163-809-11	CERAMIC CHIP 0.047UF	10.00% 25V	D6353	8-719-987-87	DIODE ERA82-004TP1	
C6367	1-104-329-11	CERAMIC CHIP 0.1UF	10.00% 50V	D6354	8-719-914-43	DIODE DAN202K-T-146	
C6368	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	D6355	8-719-914-43	DIODE DAN202K-T-146	
C6370	1-136-347-11	FILM 0.0047UF	5.00% 630V	D6358	8-719-914-43	DIODE DAN202K-T-146	
C6373	1-136-153-00	MYLAR 0.01UF	5.00% 50V	D6359	8-719-302-43	DIODE RGP10GPKG23	
C6374	1-129-716-00	FILM 0.015UF	5.00% 630V	D6401	8-719-914-43	DIODE DAN202K-T-146	
C6375	1-102-110-00	CERAMIC 220PF	10.00% 50V	D6402	8-719-982-03	DIODE MTZJ-T-77-3.6A	
C6376	1-104-664-11	ELECT 47UF	20.00% 16V	D6403	8-719-921-63	DIODE MTZJ-T-77-7.5B	
C6377	1-128-551-11	ELECT 22UF	20.00% 25V	D6404	8-719-914-43	DIODE DAN202K-T-146	
C6378	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V				
C6380	1-136-165-00	MYLAR 0.1UF	5.00% 50V				

D1

The components identified by shading and marked **⚠** are critical for safety  
Replace only with the part number specified.

D6405 8-719-921-63 DIODE MTZJ-T-77-7.5B

< IC >

IC6100	8-759-450-95	IC LM393N
IC6101	8-759-450-95	IC LM393N
IC6102	8-759-638-79	IC NJM3404AD-W
IC6103	8-759-450-95	IC LM393N
IC6250	8-759-478-66	IC CXA8070P

IC6251	8-759-903-16	IC LM318P
IC6302	8-752-072-94	IC CXA1875AM-T4
IC6350	8-759-008-70	IC LM358N
IC6351	8-759-450-95	IC LM393N
IC6352	8-759-450-95	IC LM393N

IC6353	8-759-231-53	IC L7805CV
IC6354	8-759-325-48	IC CA0005AD
IC6355	8-759-008-70	IC LM358N
IC6356	8-759-822-38	IC LA6510

< FILTER >

LF6350	1-406-989-21	INDUCTOR	10MH
LF6351	1-406-989-21	INDUCTOR	10MH

< IC LINK >

PS6376  1-532-637-00 LINK, IC 1A/150V

< TRANSISTOR >

Q6100	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6101	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6102	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6103	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6104	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R

Q6105	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6106	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6107	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6108	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R
Q6110	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R

Q6112	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6113	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6118	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6119	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R
Q6120	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R

Q6122	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R
Q6123	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R
Q6125	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R
Q6126	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R
Q6127	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R

Q6128 8-729-120-28 TRANSISTOR 2SC2412K-T-146-R

Q6128	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6129	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R
Q6201	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6202	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6250	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R

Q6251	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6252	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R
Q6253	8-729-045-04	TRANSISTOR	2SC5511
Q6254	8-729-045-05	TRANSISTOR	2SA2005
Q6350	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R

Q6351	8-729-119-78	TRANSISTOR 2SC1740S-RT
Q6352	8-729-140-97	TRANSISTOR 2SB734-T-3
Q6353	8-729-140-97	TRANSISTOR 2SB734-T-3
Q6354	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R
Q6356	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R

Q6358	8-729-038-83	TRANSISTOR 2SK2251-01-F19
Q6401	1-801-806-11	TRANSISTOR DTC144EKA-T146
Q6402	1-801-806-11	TRANSISTOR DTC144EKA-T146
Q6403	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R
Q6404	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R

Q6405	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R
Q6455	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R
Q6465	8-729-120-28	TRANSISTOR	2SC2412K-T-146-R

< RESISTOR >

R6100	1-216-033-00	RES-CHIP	220	5%	1/10W
R6101	1-216-033-00	RES-CHIP	220	5%	1/10W
R6102	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6103	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6104	1-216-057-00	RES-CHIP	2.2K	5%	1/10W

R6105	1-216-049-91	RES-CHIP	1K	5%	1/10W
R6106	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6107	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R6108	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R6109	1-216-683-11	METAL CHIP	22K	0.5%	1/10W

R6110	1-216-683-11	METAL CHIP	22K	0.5%	1/10W
R6111	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6112	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6113	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6114	1-216-073-00	RES-CHIP	10K	5%	1/10W

R6115	1-216-089-91	RES-CHIP	47K	5%	1/10W
R6116	1-216-089-91	RES-CHIP	47K	5%	1/10W
R6117	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6118	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6119	1-216-073-00	RES-CHIP	10K	5%	1/10W

R6120	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6121	1-216-057-00	RES-CHIP	2.2K	5%	1/10W



REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
R6122	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R6188	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R6123	1-216-089-91	RES-CHIP	47K 5% 1/10W	R6189	1-216-051-00	RES-CHIP	1.2K 5% 1/10W
R6124	1-216-089-91	RES-CHIP	47K 5% 1/10W	R6190	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R6125	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R6191	1-215-925-11	METAL OXIDE	22K 5% 3W
R6126	1-216-037-00	RES-CHIP	330 5% 1/10W	R6192	1-216-665-11	METAL CHIP	3.9K 0.5% 1/10W
R6127	1-216-663-11	METAL CHIP	3.3K 0.5% 1/10W	R6194	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R6128	1-216-691-11	METAL CHIP	47K 0.5% 1/10W	R6195	1-216-683-11	METAL CHIP	22K 0.5% 1/10W
R6129	1-216-691-11	METAL CHIP	47K 0.5% 1/10W	R6196	1-249-377-11	CARBON	0.47 5% 1/4W
R6130	1-218-768-11	METAL CHIP	470K 0.5% 1/10W	R6198	1-216-081-00	RES-CHIP	22K 5% 1/10W
R6131	1-216-037-00	RES-CHIP	330 5% 1/10W	R6199	1-216-075-00	RES-CHIP	12K 5% 1/10W
R6132	1-216-037-00	RES-CHIP	330 5% 1/10W	R6205	1-216-025-91	RES-CHIP	100 5% 1/10W
R6133	1-216-037-00	RES-CHIP	330 5% 1/10W	R6206	1-216-105-91	RES-CHIP	220K 5% 1/10W
R6135	1-163-021-91	CERAMIC CHIP	0.01 10.0% 50V	R6207	1-216-099-00	RES-CHIP	120K 5% 1/10W
R6136	1-216-691-11	METAL CHIP	47K 0.5% 1/10W	R6208	1-216-089-91	RES-CHIP	47K 5% 1/10W
R6137	1-216-691-11	METAL CHIP	47K 0.5% 1/10W	R6210	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R6138	1-216-691-11	METAL CHIP	47K 0.5% 1/10W	R6211	1-216-073-00	RES-CHIP	10K 5% 1/10W
R6139	1-216-691-11	METAL CHIP	47K 0.5% 1/10W	R6212	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R6140	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R6215	1-216-683-11	METAL CHIP	22K 0.5% 1/10W
R6141	1-216-683-11	METAL CHIP	22K 0.5% 1/10W	R6216	1-216-089-91	RES-CHIP	47K 5% 1/10W
R6142	1-216-672-11	METAL CHIP	7.5K 0.5% 1/10W	R6217	1-216-073-00	RES-CHIP	10K 5% 1/10W
R6143	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R6218	1-216-295-91	SHORT	0
R6144	1-216-089-91	RES-CHIP	47K 5% 1/10W	R6254	1-216-049-91	RES-CHIP	1K 5% 1/10W
R6145	1-216-295-91	SHORT	0	R6255	1-216-061-00	RES-CHIP	3.3K 5% 1/10W
R6146	1-216-667-11	METAL CHIP	4.7K 0.5% 1/10W	R6256	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R6148	1-216-295-91	SHORT	0	R6257	1-216-061-00	RES-CHIP	3.3K 5% 1/10W
R6149	1-216-025-91	RES-CHIP	100 5% 1/10W	R6258	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R6154	1-216-651-11	METAL CHIP	1K 0.5% 1/10W	R6259	1-216-097-91	RES-CHIP	100K 5% 1/10W
R6155	1-216-667-11	METAL CHIP	4.7K 0.5% 1/10W	R6260	1-216-049-91	RES-CHIP	1K 5% 1/10W
R6158	1-216-663-11	METAL CHIP	3.3K 0.5% 1/10W	R6261	1-216-097-91	RES-CHIP	100K 5% 1/10W
R6159	1-216-295-91	SHORT	0	R6262	1-260-321-71	CARBON	270 5% 1/2W
R6160	1-216-295-91	SHORT	0	R6263	1-216-025-91	RES-CHIP	100 5% 1/10W
R6161	1-216-673-11	METAL CHIP	8.2K 0.5% 1/10W	R6264	1-216-025-91	RES-CHIP	100 5% 1/10W
R6162	1-216-049-91	RES-CHIP	1K 5% 1/10W	R6265	1-216-097-91	RES-CHIP	100K 5% 1/10W
R6165	1-216-699-91	METAL CHIP	100K 0.5% 1/10W	R6267	1-216-049-91	RES-CHIP	1K 5% 1/10W
R6168	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R6268	1-216-081-00	RES-CHIP	22K 5% 1/10W
R6169	1-216-699-91	METAL CHIP	100K 0.5% 1/10W	R6269	1-216-667-11	METAL CHIP	4.7K 0.5% 1/10W
R6170	1-216-037-00	RES-CHIP	330 5% 1/10W	R6270	1-216-667-11	METAL CHIP	4.7K 0.5% 1/10W
R6171	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R6271	1-216-683-11	METAL CHIP	22K 0.5% 1/10W
R6174	1-216-075-00	RES-CHIP	12K 5% 1/10W	R6276	1-216-678-11	METAL CHIP	13K 0.5% 1/10W
R6175	1-216-069-00	RES-CHIP	6.8K 5% 1/10W	R6277	1-216-677-11	METAL CHIP	12K 0.5% 1/10W
R6176	1-216-083-00	RES-CHIP	27K 5% 1/10W	R6278	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R6177	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R6279	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R6179	1-216-295-91	SHORT	0	R6280	1-212-849-00	FUSIBLE	4.7 5% 1/4W
R6180	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R6281	1-212-849-00	FUSIBLE	4.7 5% 1/4W
R6182	1-216-089-91	RES-CHIP	47K 5% 1/10W	R6282	1-215-886-11	METAL OXIDE	100 5% 2W
R6183	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R6283	1-216-393-00	METAL OXIDE	2.2 5% 3W
R6186	1-216-061-00	RES-CHIP	3.3K 5% 1/10W	R6284	1-216-101-00	RES-CHIP	150K 5% 1/10W

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
R6285	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R6398	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R6286	1-216-073-00	RES-CHIP	10K 5% 1/10W	R6399	1-218-758-11	METAL CHIP	180K 0.5% 1/10W
R6287	1-216-073-00	RES-CHIP	10K 5% 1/10W	R6400	1-216-675-91	METAL CHIP	10K 0.5% 1/10W
R6313	1-216-295-91	SHORT	0	R6401	1-216-295-91	SHORT	0
R6322	1-216-049-91	RES-CHIP	1K 5% 1/10W	R6402	1-216-295-91	SHORT	0
R6323	1-216-049-91	RES-CHIP	1K 5% 1/10W	R6403	1-216-661-11	METAL CHIP	2.7K 0.5% 1/10W
R6324	1-216-025-91	RES-CHIP	100 5% 1/10W	R6404	1-216-683-11	METAL CHIP	22K 0.5% 1/10W
R6325	1-216-025-91	RES-CHIP	100 5% 1/10W	R6405	1-216-683-11	METAL CHIP	22K 0.5% 1/10W
R6350	1-216-089-91	RES-CHIP	47K 5% 1/10W	R6409	1-216-025-91	RES-CHIP	100 5% 1/10W
R6351	1-218-762-11	METAL CHIP	270K 0.5% 1/10W	R6410	1-216-073-00	RES-CHIP	10K 5% 1/10W
R6353	1-216-668-11	METAL CHIP	5.1K 0.5% 1/10W	R6411	1-216-073-00	RES-CHIP	10K 5% 1/10W
R6355	1-218-774-11	METAL CHIP	820K 0.5% 1/10W	R6412	1-216-073-00	RES-CHIP	10K 5% 1/10W
R6356	1-216-675-91	METAL CHIP	10K 0.5% 1/10W	R6413	1-216-679-11	METAL CHIP	15K 0.5% 1/10W
R6357	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R6414	1-216-683-11	METAL CHIP	22K 0.5% 1/10W
R6358	1-216-047-91	RES-CHIP	820 5% 1/10W	R6415	1-216-683-11	METAL CHIP	22K 0.5% 1/10W
R6359	1-216-097-91	RES-CHIP	100K 5% 1/10W	R6416	1-216-683-11	METAL CHIP	22K 0.5% 1/10W
R6360	1-216-073-00	RES-CHIP	10K 5% 1/10W	R6418	1-216-091-00	RES-CHIP	56K 5% 1/10W
R6361	1-216-097-91	RES-CHIP	100K 5% 1/10W	R6419	1-216-073-00	RES-CHIP	10K 5% 1/10W
R6362	1-216-687-11	METAL CHIP	33K 0.5% 1/10W	R6420	1-216-089-91	RES-CHIP	47K 5% 1/10W
R6363	1-216-675-91	METAL CHIP	10K 0.5% 1/10W	R6421	1-216-637-11	METAL CHIP	270 0.5% 1/10W
R6364	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R6422	1-216-639-11	METAL CHIP	330 0.5% 1/10W
R6365	1-216-033-00	RES-CHIP	220 5% 1/10W	R6423	1-216-657-11	METAL CHIP	1.8K 0.5% 1/10W
R6366	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R6426	1-216-081-00	RES-CHIP	22K 5% 1/10W
R6367	1-216-679-11	METAL CHIP	15K 0.5% 1/10W	R6427	1-216-081-00	RES-CHIP	22K 5% 1/10W
R6368	1-218-758-11	METAL CHIP	180K 0.5% 1/10W	R6428	1-216-105-91	RES-CHIP	220K 5% 1/10W
R6369	1-218-762-11	METAL CHIP	270K 0.5% 1/10W	R6429	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R6370	1-216-675-91	METAL CHIP	10K 0.5% 1/10W	R6430	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R6371	1-216-473-11	METAL OXIDE	56 5% 3W	R6431	1-216-121-91	RES-CHIP	1M 5% 1/10W
R6372	1-216-033-00	RES-CHIP	220 5% 1/10W	R6432	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R6373	1-216-681-11	METAL CHIP	18K 0.5% 1/10W	R6433	1-216-073-00	RES-CHIP	10K 5% 1/10W
R6374	1-216-689-11	METAL CHIP	39K 0.5% 1/10W	R6437	1-249-422-11	CARBON	2.7K 5% 1/4W
R6375	1-216-041-00	RES-CHIP	470 5% 1/10W	R6438	1-249-421-11	CARBON	2.2K 5% 1/4W
R6377	1-216-689-11	METAL CHIP	39K 0.5% 1/10W	R6439	1-216-683-11	METAL CHIP	22K 0.5% 1/10W
R6378	1-216-675-91	METAL CHIP	10K 0.5% 1/10W	R6440	1-216-683-11	METAL CHIP	22K 0.5% 1/10W
R6379	1-216-295-91	SHORT	0	R6441	1-216-675-91	METAL CHIP	10K 0.5% 1/10W
R6380	1-218-754-11	METAL CHIP	120K 0.5% 1/10W	R6442	1-216-039-00	RES-CHIP	390 5% 1/10W
R6381	1-216-045-00	RES-CHIP	680 5% 1/10W	R6455	1-216-295-91	SHORT	0
R6382	1-218-754-11	METAL CHIP	120K 0.5% 1/10W	R6456	1-216-097-91	RES-CHIP	100K 5% 1/10W
R6383	1-216-687-11	METAL CHIP	33K 0.5% 1/10W	R6457	1-216-075-00	RES-CHIP	12K 5% 1/10W
R6384	1-216-043-91	RES-CHIP	560 5% 1/10W	R6458	1-216-089-91	RES-CHIP	47K 5% 1/10W
R6385	1-216-295-91	SHORT	0	R6459	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R6386	1-216-699-91	METAL CHIP	100K 0.5% 1/10W	R6460	1-249-393-11	CARBON	10 5% 1/4W
R6387	1-216-677-11	METAL CHIP	12K 0.5% 1/10W	R6461	1-249-411-11	CARBON	330 5% 1/4W
R6391	1-249-417-11	CARBON	1K 5% 1/4W	R6462	1-249-406-11	CARBON	120 5% 1/4W
R6394	1-216-069-00	RES-CHIP	6.8K 5% 1/10W	R6463	1-216-095-00	RES-CHIP	82K 5% 1/10W
R6395	1-216-081-00	RES-CHIP	22K 5% 1/10W	R6464	1-216-079-00	RES-CHIP	18K 5% 1/10W
R6397	1-216-675-91	METAL CHIP	10K 0.5% 1/10W				

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
<b>*A-1640-381-A E Board, Complete</b>				C4371	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
< CAPACITOR >				C4377	1-126-960-11	ELECT 1UF	20.00% 50V
C4316	1-104-664-11	ELECT 47UF	20.00% 25V	C4518	1-162-638-11	CERAMIC CHIP 1UF	16V
C4317	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C4519	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4318	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	< CONNECTOR >			
C4319	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	CN4101	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	
C4320	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	CN4500	*1-564-511-11	PLUG, CONNECTOR 8P	
C4321	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	CN4502	*1-568-878-51	PIN, CONNECTOR 3P	
C4322	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	< DIODE >			
C4324	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D4304	8-719-923-60	DIODE MTZJ-T-77-9.1	
C4325	1-163-093-00	CERAMIC CHIP 10PF	5.00% 50V	D4305	8-719-923-60	DIODE MTZJ-T-77-9.1	
C4329	1-126-963-11	ELECT 4.7UF	20.00% 50V	D4311	8-719-914-43	DIODE DAN202K-T-146	
C4330	1-137-581-11	FILM 0.1UF	5.00% 100V	D4312	8-719-914-43	DIODE DAN202K-T-146	
C4331	1-126-959-11	ELECT 0.47UF	20.00% 50V	D4313	8-719-401-63	DIODE MA3062M-TX	
C4332	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	< FERRITE BEAD >			
C4333	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	FB4387	1-414-234-22	INDUCTOR CHIP 0UH	
C4334	1-126-967-11	ELECT 47UF	20.00% 50V	FB4388	1-414-234-22	INDUCTOR CHIP 0UH	
C4336	1-126-967-11	ELECT 47UF	20.00% 50V	FB4389	1-414-234-22	INDUCTOR CHIP 0UH	
C4338	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	< IC >			
C4340	1-126-967-11	ELECT 47UF	20.00% 50V	IC4301	8-752-090-88	IC CXA2100AQ-TL	
C4342	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	< COIL >			
C4343	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	L4301	1-414-183-41	INDUCTOR 10UH	
C4344	1-163-809-11	CERAMIC CHIP 0.047UF	10.00% 25V	L4302	1-414-183-41	INDUCTOR 10UH	
C4345	1-126-967-11	ELECT 47UF	20.00% 50V	L4303	1-414-183-41	INDUCTOR 10UH	
C4346	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	L4304	1-414-183-41	INDUCTOR 10UH	
C4347	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	L4305	1-414-183-41	INDUCTOR 10UH	
C4348	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	L4306	1-414-183-41	INDUCTOR 10UH	
C4349	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	L4308	1-414-186-31	INDUCTOR 33UH	
C4350	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	L4309	1-414-186-31	INDUCTOR 33UH	
C4351	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V	< TRANSISTOR >			
C4352	1-126-967-11	ELECT 47UF	20.00% 50V	Q4304	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
C4353	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V	Q4307	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
C4354	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V	Q4308	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
C4355	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	Q4309	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
C4356	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	Q4310	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
C4357	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	Q4311	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
C4358	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	Q4312	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
C4359	1-164-161-11	CERAMIC CHIP 0.0022UF	10.00% 50V	Q4313	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
C4360	1-126-963-11	ELECT 4.7UF	20.00% 50V	Q4315	1-801-806-11	TRANSISTOR DTC144EKA-T146	
C4362	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	Q4316	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
C4363	1-126-967-11	ELECT 47UF	20.00% 50V	Q4317	8-729-900-53	TRANSISTOR DTC114EKA-T146	
C4364	1-126-967-11	ELECT 47UF	20.00% 50V				
C4366	1-163-059-91	CERAMIC CHIP 0.01UF	10.00% 50V				
C4367	1-104-760-11	CERAMIC CHIP 0.047UF	10.00% 50V				
C4369	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V				
C4370	1-126-967-11	ELECT 47UF	20.00% 50V				



The components identified by shading and marked  $\Delta$  are critical for safety  
Replace only with the part number specified.

REF. NO.	PART.NO	DESCRIPTION	REMARK			REF. NO.	PART.NO	DESCRIPTION	REMARK		
< RESISTOR >						R4375	1-216-049-91	RES-CHIP	1K	5%	1/10W
R4301	1-216-025-91	RES-CHIP	100	5%	1/10W	R4376	1-216-049-91	RES-CHIP	1K	5%	1/10W
R4302	1-216-025-91	RES-CHIP	100	5%	1/10W	R4377	1-216-049-91	RES-CHIP	1K	5%	1/10W
R4303	1-216-025-91	RES-CHIP	100	5%	1/10W	R4378	1-216-101-00	RES-CHIP	150K	5%	1/10W
R4304	1-216-025-91	RES-CHIP	100	5%	1/10W	R4379	1-216-091-00	RES-CHIP	56K	5%	1/10W
R4305	1-216-025-91	RES-CHIP	100	5%	1/10W	R4380	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4306	1-216-025-91	RES-CHIP	100	5%	1/10W	R4381	1-216-125-00	RES-CHIP	1.5M	5%	1/10W
R4307	1-216-045-00	RES-CHIP	680	5%	1/10W	R4382	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4308	1-216-045-00	RES-CHIP	680	5%	1/10W	R4383	1-216-089-91	RES-CHIP	47K	5%	1/10W
R4309	1-216-045-00	RES-CHIP	680	5%	1/10W	R4384	1-216-025-91	RES-CHIP	100	5%	1/10W
R4313	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R4387	1-216-031-00	RES-CHIP	180	5%	1/10W
R4314	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R4388	1-216-031-00	RES-CHIP	180	5%	1/10W
R4331	1-216-073-00	RES-CHIP	10K	5%	1/10W	R4389	1-216-031-00	RES-CHIP	180	5%	1/10W
R4332	1-216-073-00	RES-CHIP	10K	5%	1/10W	R4394	1-216-025-91	RES-CHIP	100	5%	1/10W
R4333	1-216-073-00	RES-CHIP	10K	5%	1/10W	R4395	1-216-295-91	SHORT	0		
R4334	1-216-025-91	RES-CHIP	100	5%	1/10W	R4396	1-216-295-91	SHORT	0		
R4335	1-216-025-91	RES-CHIP	100	5%	1/10W	R4398	1-216-025-91	RES-CHIP	100	5%	1/10W
R4336	1-216-025-91	RES-CHIP	100	5%	1/10W	R4399	1-216-025-91	RES-CHIP	100	5%	1/10W
R4337	1-216-025-91	RES-CHIP	100	5%	1/10W	R4401	1-216-107-00	RES-CHIP	270K	5%	1/10W
R4339	1-216-049-91	RES-CHIP	1K	5%	1/10W	R4507	1-216-129-00	RES-CHIP	2.2M	5%	1/10W
R4340	1-216-111-00	RES-CHIP	390K	5%	1/10W	R4518	1-216-025-91	RES-CHIP	100	5%	1/10W
R4341	1-216-295-91	SHORT	0			R4519	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4343	1-216-025-91	RES-CHIP	100	5%	1/10W	R4520	1-216-295-91	SHORT	0		
R4344	1-216-025-91	RES-CHIP	100	5%	1/10W	R4521	1-216-295-91	SHORT	0		
R4345	1-216-677-11	METAL CHIP	12K	0.5%	1/10W	R4522	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4346	1-216-681-11	METAL CHIP	18K	0.5%	1/10W	< CRYSTAL >					
R4347	1-216-025-91	RES-CHIP	100	5%	1/10W	X4300	1-767-127-11	VIBRATOR, CERAMIC			
R4348	1-216-025-91	RES-CHIP	100	5%	1/10W	*A-1640-398-A D Board, Complete					
R4350	1-216-025-91	RES-CHIP	100	5%	1/10W	4-201-023-01	SPACER, INSULATING				
R4354	1-216-675-91	METAL CHIP	10K	0.5%	1/10W	4-202-373-01	SPRING, IC				
R4355	1-216-009-91	RES-CHIP	22	5%	1/10W	4-382-854-11	SCREW (M3X10), P, SW (+)				
R4356	1-216-009-91	RES-CHIP	22	5%	1/10W	*4-931-401-01	HEAT SINK, V.OUT				
R4357	1-216-009-91	RES-CHIP	22	5%	1/10W	< CAPACITOR >					
R4358	1-216-071-00	RES-CHIP	8.2K	5%	1/10W	C6600	△ 1-127-802-51	CERAMIC	10000PF	20.00%	250V
R4359	1-216-041-00	RES-CHIP	470	5%	1/10W	C6603	△ 1-126-933-11	ELECT	100UF	20.00%	16V
R4360	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	C6604	△ 1-126-767-11	ELECT	1000UF	20.00%	16V
R4361	1-216-133-00	RES-CHIP	3.3M	5%	1/10W	C6605	△ 1-119-888-51	CERAMIC	2200PF	20.00%	250V
R4363	1-216-025-91	RES-CHIP	100	5%	1/10W	C6606	△ 1-119-888-51	CERAMIC	2200PF	20.00%	250V
R4365	1-216-025-91	RES-CHIP	100	5%	1/10W	C6607	△ 1-136-518-12	FILM	0.33UF	20.00%	300V
R4366	1-216-025-91	RES-CHIP	100	5%	1/10W	C6608	△ 1-161-964-91	CERAMIC	0.0047UF		250V
R4367	1-216-025-91	RES-CHIP	100	5%	1/10W	C6609	△ 1-161-964-91	CERAMIC	0.0047UF		250V
R4370	1-216-089-91	RES-CHIP	47K	5%	1/10W	C6610	△ 1-161-964-91	CERAMIC	0.0047UF		250V
R4371	1-216-069-00	RES-CHIP	6.8K	5%	1/10W	C6611	△ 1-161-964-91	CERAMIC	0.0047UF		250V
R4372	1-216-049-91	RES-CHIP	1K	5%	1/10W						
R4373	1-216-073-00	RES-CHIP	10K	5%	1/10W						
R4374	1-216-049-91	RES-CHIP	1K	5%	1/10W						

REF.NO.	PART.NO	DESCRIPTION	REMARK			REF.NO.	PART.NO	DESCRIPTION	REMARK		
C6612	1-113-927-11	CERAMIC	10000PF	20.00%	250V	C6672	1-104-664-11	ELECT	47UF	20.00%	16V
C6616	1-164-625-11	CERAMIC	680PF	10.00%	500V	C6673	1-104-664-11	ELECT	47UF	20.00%	16V
C6617	1-164-625-11	CERAMIC	680PF	10.00%	500V	C6677	1-136-165-00	MYLAR	0.1UF	5.00%	50V
C6618	1-136-175-00	MYLAR	0.68UF	5.00%	50V	C6679	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C6619	1-137-194-91	MYLAR	0.47UF	5.00%	50V	C6680	1-137-150-11	MYLAR	0.01UF	5.00%	50V
C6620	1-136-618-11	FILM	0.047UF	5.00%	1.25KV	C6681	1-126-964-11	ELECT	10UF	20.00%	50V
C6621	1-136-175-00	MYLAR	0.68UF	5.00%	50V	C6682	1-107-679-91	ELECT	10UF	20.00%	450V
C6622	1-164-625-11	CERAMIC	680PF	10.00%	500V	C6700	1-102-129-00	CERAMIC	0.01UF	10.00%	50V
C6623	1-137-194-91	MYLAR	0.47UF	5.00%	50V	C6703	1-128-527-11	ELECT	330UF	20.00%	25V
C6624	1-126-968-11	ELECT	100UF	20.00%	50V	C6704	1-126-968-11	ELECT	100UF	20.00%	50V
C6626	1-164-625-11	CERAMIC	680PF	10.00%	500V	C6705	1-128-527-11	ELECT	330UF	20.00%	25V
C6627	1-164-625-11	CERAMIC	680PF	10.00%	500V	C6706	1-137-401-11	MYLAR	0.22UF	10.00%	100V
C6628	1-126-936-11	ELECT	3300UF	20.00%	16V	C6707	1-129-702-00	MYLAR	0.001UF	10.00%	400V
C6629	1-128-548-11	ELECT	4700UF	20.00%	25V	C6708	1-106-220-00	MYLAR	0.1UF	10.00%	100V
C6630	1-110-626-11	ELECT	330UF	20.00%	160V	C6709	1-102-129-00	CERAMIC	0.01UF	10.00%	50V
C6631	1-126-955-11	ELECT	4700UF	20.00%	35V	C6710	1-130-785-11	MYLAR	0.47UF	10.00%	100V
C6632	1-126-955-11	ELECT	4700UF	20.00%	35V	C6727	1-102-228-00	CERAMIC	470PF	10.00%	500V
C6633	1-126-935-11	ELECT	470UF	20.00%	16V	C6801	1-104-664-11	ELECT	47UF	20.00%	25V
C6634	1-136-165-00	MYLAR	0.1UF	5.00%	50V	C6802	1-126-960-11	ELECT	1UF	20.00%	50V
C6635	1-104-664-11	ELECT	47UF	20.00%	25V	C6803	1-126-960-11	ELECT	1UF	20.00%	50V
C6636	1-102-129-00	CERAMIC	0.01UF	10.00%	50V	C6804	1-102-114-00	CERAMIC	470PF	10.00%	50V
C6637	1-102-129-00	CERAMIC	0.01UF	10.00%	50V	C6805	1-102-114-00	CERAMIC	470PF	10.00%	50V
C6638	1-137-368-11	MYLAR	0.0047UF	5.00%	50V	C6808	1-102-030-00	CERAMIC	330PF	10.00%	500V
C6639	1-102-228-00	CERAMIC	470PF	10.00%	500V	C6809	1-102-030-00	CERAMIC	330PF	10.00%	500V
C6641	1-126-967-11	ELECT	47UF	20.00%	50V	C6810	1-107-368-11	MYLAR	0.047UF	10.00%	200V
C6642	1-128-551-11	ELECT	22UF	20.00%	25V	C6811	1-107-368-11	MYLAR	0.047UF	10.00%	200V
C6647	1-104-664-11	ELECT	47UF	20.00%	25V	C6812	1-162-131-11	CERAMIC	220PF	10.00%	2KV
C6649	1-126-965-11	ELECT	22UF	20.00%	50V	C6813	1-162-558-11	CERAMIC	100PF	10.00%	2KV
C6651	1-161-964-91	CERAMIC	0.0047UF	250V	C6814	1-117-640-11	FILM	6800PF	3.00%	1.2KV	
C6652	1-107-679-91	ELECT	10UF	20.00%	450V	C6815	1-117-835-11	FILM	6200PF	3.00%	1.5KV
C6653	1-126-968-11	ELECT	100UF	20.00%	50V	C6816	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C6654	1-162-117-00	CERAMIC	100PF	10.00%	500V	C6817	1-125-893-11	FILM	680PF	3.00%	1.5KV
C6655	1-107-974-11	CERAMIC	47PF	5.00%	2KV	C6818	1-125-893-11	FILM	680PF	3.00%	1.5KV
C6656	1-126-967-11	ELECT	47UF	20.00%	50V	C6819	1-125-893-11	FILM	680PF	3.00%	1.5KV
C6657	1-126-941-11	ELECT	470UF	20.00%	25V	C6820	1-125-893-11	FILM	680PF	3.00%	1.5KV
C6658	1-104-665-11	ELECT	100UF	20.00%	25V	C6824	1-107-846-11	FILM	0.1UF	5.00%	250V
C6659	1-104-665-11	ELECT	100UF	20.00%	25V	C6825	1-115-514-11	FILM	0.22UF	5.00%	250V
C6661	1-117-753-11	ELECT(BLOCK)	470UF	20.00%	450V	C6826	1-115-518-11	FILM	0.47UF	5.00%	250V
C6662	1-136-165-00	MYLAR	0.1UF	5.00%	50V	C6827	1-115-511-11	FILM	0.12UF	5.00%	250V
C6664	1-136-153-00	MYLAR	0.01UF	5.00%	50V	C6828	1-127-681-11	FILM MELF	10000PF	2%	100V
C6665	1-136-165-00	MYLAR	0.1UF	5.00%	50V	C6829	1-127-680-11	FILM MELF	4700PF	2%	100V
C6666	1-136-165-00	MYLAR	0.1UF	5.00%	50V	C6830	1-107-655-11	ELECT	47UF	20.00%	250V
C6667	1-126-933-11	ELECT	100UF	20.00%	16V	C6831	1-102-228-00	CERAMIC	470PF	10.00%	500V
C6668	1-126-933-11	ELECT	100UF	20.00%	16V	C6832	1-126-941-11	ELECT	470UF	20.00%	25V
C6669	1-136-165-00	MYLAR	0.1UF	5.00%	50V	C6833	1-126-941-11	ELECT	470UF	20.00%	25V
C6670	1-136-165-00	MYLAR	0.1UF	5.00%	50V	C6834	1-102-228-00	CERAMIC	470PF	10.00%	500V
C6671	1-104-664-11	ELECT	47UF	20.00%	16V	C6835	1-102-228-00	CERAMIC	470PF	10.00%	500V

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
C6836	1-123-024-21	ELECT	33UF 160V	D6625	8-719-991-33	DIODE 1SS133T-77	
C6837	1-106-375-12	MYLAR	0.022UF 10.00% 250V	D6626	8-719-991-33	DIODE 1SS133T-77	
C6840	1-137-150-11	MYLAR	0.01UF 5.00% 50V	D6627	8-719-982-27	DIODE MTZJ-T-77-33C	
C6841	1-104-664-11	ELECT	47UF 20.00% 16V	D6628	8-719-109-97	DIODE MTZJ-T-77-6.8	
C6844	1-115-513-21	FILM	0.18UF 5.00% 250V	D6629	8-719-991-33	DIODE 1SS133T-77	
C6851	1-162-131-11	CERAMIC	220PF 10.00% 2KV	D6630	8-719-991-33	DIODE 1SS133T-77	
C6852	1-162-129-00	CERAMIC	150PF 10.00% 2KV	D6631 $\Delta$	8-719-991-33	DIODE 1SS133T-77	
C6853	1-129-898-00	FILM	0.0022UF 5.00% 630V	D6651	8-719-068-00	DIODE ERC04-06SE	
C6855	1-136-205-11	MYLAR	0.022UF 10.00% 400V	D6652	8-719-921-83	DIODE MTZJ-T-77-12A	
C6856	1-102-030-00	CERAMIC	330PF 10.00% 500V	D6653	8-719-063-73	DIODE D1NL20U-TR	
C6857	1-130-785-11	MYLAR	0.47UF 10.00% 100V	D6654	8-719-059-23	DIODE P6KE200AG23	
C6861	1-130-471-00	MYLAR	0.001UF 5.00% 50V	D6655	8-719-979-64	DIODE UF4005PKG23	
C6862	1-130-471-00	MYLAR	0.001UF 5.00% 50V	D6656	8-719-063-73	DIODE D1NL20U-TR	
< CONNECTOR >				D6658	8-719-068-00	DIODE ERC04-06SE	
CN6100	1-785-802-11	PIN, CONNECTOR (WITH PWB) 20P		D6659	8-719-063-73	DIODE D1NL20U-TR	
CN6101	1-785-802-11	PIN, CONNECTOR (WITH PWB) 20P		D6676	8-719-991-33	DIODE 1SS133T-77	
CN6102	1-785-802-11	PIN, CONNECTOR (WITH PWB) 20P		D6677	8-719-921-40	DIODE MTZJ-T-77-4.7B	
CN6500	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		D6678	8-719-921-40	DIODE MTZJ-T-77-4.7B	
CN6600	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P		D6679	8-719-991-33	DIODE 1SS133T-77	
CN6611	*1-785-270-12	PIN, DY CONNECTOR (PC BOARD)		D6681	8-719-991-33	DIODE 1SS133T-77	
CN6620 $\Delta$	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		D6700	8-719-200-02	DIODE ERA15-02TP1	
CN6622	1-695-915-11	TAB (CONTACT)		D6701	8-719-110-41	DIODE MTZJ-T-77-15B	
CN6644 $\Delta$	*1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P		D6803	8-719-200-02	DIODE ERA15-02TP1	
CN6655	1-695-915-11	TAB (CONTACT)		D6804	1-535-143-11	LEAD, JUMPER (10.00MM)	
CN6666 $\Delta$	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		D6805	8-719-302-43	DIODE RGP10GPKG23	
CN6700 $\Delta$	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P		D6806	8-719-979-85	DIODE RGP15GPKG23	
< DIODE >				D6807	8-719-510-73	DIODE S3L20UF4	
D6600	8-719-911-19	DIODE 1SS119-25TD		D6808	8-719-510-73	DIODE S3L20UF4	
D6601 $\Delta$	8-719-063-73	DIODE D1NL20U-TR		D6809	8-719-991-33	DIODE 1SS133T-77	
D6602	8-719-109-89	DIODE MTZJ-T-77-5.6B		D6810	1-247-895-91	CARBON 470K 5% 1/4W	
D6603 $\Delta$	8-719-921-19	DIODE 1SS119-25TD		D6811	8-719-110-41	DIODE MTZJ-T-77-15B	
D6604	8-719-510-53	DIODE D4SB60L-F		D6851	8-719-970-87	DIODE ERA38-06TP1	
D6605	8-719-991-33	DIODE 1SS133T-77		D6852	8-719-970-87	DIODE ERA38-06TP1	
D6610	8-719-063-73	DIODE D1NL20U-TR		< FERRITE BEAD >			
D6613	8-719-911-19	DIODE 1SS119-25TD		FB6602	1-410-396-41	FERRITE 0.45UH	
D6615	8-719-911-19	DIODE 1SS119-25TD		FB6603	1-410-396-41	FERRITE 0.45UH	
D6616	8-719-510-12	DIODE D10SC4M-F		< IC >			
D6617	8-719-500-71	DIODE D8LC40F		IC6600	1-810-051-11	POWER MODULE DM-48	
D6618	8-719-079-50	DIODE RBV-402L		IC6604	8-729-045-40	TRANSISTOR MX0842A-F	
D6619	8-719-510-12	DIODE D10SC4M-F		IC6651	8-759-468-89	IC TOP209P	
D6620	8-719-510-09	DIODE D10SC6M-F		IC6652	8-759-394-35	IC BA12T	
D6621	8-719-991-33	DIODE 1SS133T-77		IC6653	8-759-544-13	IC KA78R09-YDTU	
D6622	8-719-991-33	DIODE 1SS133T-77		IC6654	8-759-574-76	IC KA78R05-SYDTU	
D6623	8-719-911-19	DIODE 1SS119-25TD		IC6667	8-759-908-15	IC TL431CZ	
D6624	8-719-991-33	DIODE 1SS133T-77		IC6676	8-759-908-15	IC TL431CZ	

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REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
IC6700	8-759-192-71	IC STV9379		Q6679	8-729-026-39	TRANSISTOR 2SA933AS-RT	
IC6801	8-759-103-93	IC LM393P		Q6680	8-729-029-66	TRANSISTOR DTC114ESA-TP	
< COIL >				Q6681	8-729-029-66	TRANSISTOR DTC114ESA-TP	
L6602	1-412-529-11	INDUCTOR 22UH		Q6700	8-729-039-68	TRANSISTOR IRF620	
L6603	1-412-529-11	INDUCTOR 22UH		Q6801	8-729-119-80	TRANSISTOR 2SC2688-LK	
L6604	1-412-525-31	INDUCTOR 10UH		Q6802	8-729-119-80	TRANSISTOR 2SC2688-LK	
L6605	1-412-523-41	INDUCTOR 6.8UH		Q6803	8-729-046-18	TRANSISTOR 2SC5480-01	
L6606	1-412-525-31	INDUCTOR 10UH		Q6804	8-729-046-18	TRANSISTOR 2SC5480-01	
L6607	1-412-525-31	INDUCTOR 10UH		Q6805	8-729-038-83	TRANSISTOR 2SK2251-01-F19	
L6651	1-414-183-41	INDUCTOR 10UH		Q6806	8-729-047-59	TRANSISTOR STP5NB40FP	
L6700	1-412-524-11	INDUCTOR 8.2UH		Q6807	8-729-030-02	TRANSISTOR DTC144ESA-TP	
L6801	1-412-519-11	INDUCTOR 3.3UH		Q6851	8-729-043-95	TRANSISTOR 2SC3840K	
L6802	1-412-519-11	INDUCTOR 3.3UH		< RESISTOR >			
L6803	1-412-533-21	INDUCTOR 47UH		R6601	$\Delta$ 1-202-968-11	CEMENTED 1.2 5% 10W	
L6805	1-408-947-00	INDUCTOR 2.2MH		R6602	1-249-433-11	CARBON 22K 5% 1/4W	
L6806	1-535-143-61	LEAD, JUMPER (5.00MM)		R6603	$\Delta$ 1-249-430-11	CARBON 12K 5% 1/4W	
L6807	1-410-397-21	FERRITE 1.1UH		R6604	1-249-421-11	CARBON 2.2K 5% 1/4W	
L6851	1-535-143-61	LEAD, JUMPER (5.00MM)		R6605	1-249-417-11	CARBON 1K 5% 1/4W	
< FILTER >				R6606	$\Delta$ 1-202-968-11	CEMENTED 1.2 5% 10W	
LF6603	1-406-659-11	INDUCTOR 10UH		R6608	$\Delta$ 1-220-797-11	CEMENTED 0.47 5% 10W	
LF6604	1-406-659-11	INDUCTOR 10UH		R6611	$\Delta$ 1-260-125-11	CARBON 150K 5% 1/2W	
LF6801	1-406-985-11	INDUCTOR 2.2MH		R6612	1-260-125-11	CARBON 150K 5% 1/2W	
LF6851	1-406-674-11	INDUCTOR 3.3MH		R6613	1-216-369-00	METAL OXIDE 1 5% 2W	
< IC LINK >				R6614	1-260-125-11	CARBON 150K 5% 1/2W	
PS6601	$\Delta$ 1-801-550-21	PROTECTOR, MODULE 2.5A MP250		R6615	1-260-125-11	CARBON 150K 5% 1/2W	
PS6602	$\Delta$ 1-801-550-21	PROTECTOR, MODULE 2.5A MP250		R6616	1-216-369-00	METAL OXIDE 1 5% 2W	
PS6603	$\Delta$ 1-801-549-21	PROTECTOR, MODULE 4.0A MP250		R6619	1-249-425-11	CARBON 4.7K 5% 1/4W	
PS6604	$\Delta$ 1-801-550-21	PROTECTOR, MODULE 2.5A MP250		R6620	1-249-443-11	CARBON 0.47 5% 1/4W	
PS6605	$\Delta$ 1-801-550-21	PROTECTOR, MODULE 2.5A MP250		R6624	1-249-425-11	CARBON 4.7K 5% 1/4W	
< TRANSISTOR >				R6625	1-249-429-11	CARBON 10K 5% 1/4W	
Q6600	$\Delta$ 8-729-046-47	TRANSISTOR KSC2500-BTA		R6626	1-247-807-31	CARBON 100 5% 1/4W	
Q6602	8-729-026-39	TRANSISTOR 2SA933AS-RT		R6627	1-249-429-11	CARBON 10K 5% 1/4W	
Q6603	8-729-119-78	TRANSISTOR 2SC1740S-RT		R6628	1-260-129-11	CARBON 330K 5% 1/2W	
Q6605	8-729-046-47	TRANSISTOR KSC2500-BTA		R6629	1-260-129-11	CARBON 330K 5% 1/2W	
Q6606	8-729-029-56	TRANSISTOR DTA144ESA-TP		R6630	1-249-417-11	CARBON 1K 5% 1/4W	
Q6607	8-729-119-78	TRANSISTOR 2SC1740S-RT		R6631	1-249-425-11	CARBON 4.7K 5% 1/4W	
Q6608	8-729-029-66	TRANSISTOR DTC114ESA-TP		R6632	1-207-905-00	WIREWOUND 0.27 10% 2W	
Q6611	8-729-029-66	TRANSISTOR DTC114ESA-TP		R6633	1-249-429-11	CARBON 10K 5% 1/4W	
Q6651	8-729-026-39	TRANSISTOR 2SA933AS-RT		R6635	1-535-143-11	LEAD, JUMPER (10.00MM)	
Q6652	8-729-029-86	TRANSISTOR DTC124ESA-TP		R6637	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q6667	8-729-026-39	TRANSISTOR 2SA933AS-RT		R6638	1-247-895-91	CARBON 470K 5% 1/4W	
Q6676	8-729-119-78	TRANSISTOR 2SC1740S-RT		R6639	1-249-416-11	CARBON 820 5% 1/4W	
Q6677	8-729-119-78	TRANSISTOR 2SC1740S-RT		R6640	1-249-417-11	CARBON 1K 5% 1/4W	
Q6678	8-729-119-78	TRANSISTOR 2SC1740S-RT		R6641	1-260-127-11	CARBON 220K 5% 1/2W	
				R6642	1-249-389-11	CARBON 4.7 5% 1/4W	
				R6643	1-249-417-11	CARBON 1K 5% 1/4W	

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REF. NO.	PART.NO	DESCRIPTION	REMARK			REF. NO.	PART.NO	DESCRIPTION	REMARK		
R6644	1-249-429-11	CARBON	10K	5%	1/4W	R6804	$\Delta$ 1-249-408-11	CARBON	180	5%	1/4W
R6645	1-260-131-11	CARBON	470K	5%	1/2W	R6805	1-249-408-11	CARBON	180	5%	1/4W
R6646	1-249-429-11	CARBON	10K	5%	1/4W	R6806	1-249-411-11	CARBON	330	5%	1/4W
R6647	1-249-410-11	CARBON	270	5%	1/4W	R6807	1-249-411-11	CARBON	330	5%	1/4W
R6648	1-249-433-11	CARBON	22K	5%	1/4W	R6808	$\Delta$ 1-260-340-11	CARBON	10K	5%	1/2W
R6649	1-215-926-00	METAL OXIDE	33K	5%	3W	R6809	1-260-340-11	CARBON	10K	5%	1/2W
R6651	1-247-791-91	CARBON	22	5%	1/4W	R6810	1-215-920-11	METAL OXIDE	3.3K	5%	3W
R6652	1-249-389-11	CARBON	4.7	5%	1/4W	R6811	1-216-461-00	METAL OXIDE	5.6K	5%	2W
R6653	1-249-421-11	CARBON	2.2K	5%	1/4W	R6812	1-215-895-11	METAL OXIDE	3.3K	5%	2W
R6655	1-249-429-11	CARBON	10K	5%	1/4W	R6813	1-215-920-11	METAL OXIDE	3.3K	5%	3W
R6656	1-218-265-11	METAL	8.2M	5%	1W	R6814	1-215-880-00	METAL OXIDE	10	5%	2W
R6657	1-215-421-00	METAL	1K	1%	1/4W	R6815	1-215-880-00	METAL OXIDE	10	5%	2W
R6666	1-202-933-61	FUSIBLE	0.1	10%	1/2W	R6816	1-216-361-00	METAL OXIDE	0.22	5%	2W
R6667	1-215-441-00	METAL	6.8K	1%	1/4W	R6817	1-216-361-00	METAL OXIDE	0.22	5%	2W
R6668	1-249-428-11	CARBON	8.2K	5%	1/4W	R6818	1-249-405-11	CARBON	100	5%	1/4W
R6669	1-249-413-11	CARBON	470	5%	1/4W	R6819	1-247-807-31	CARBON	100	5%	1/4W
R6676	1-249-417-11	CARBON	1K	5%	1/4W	R6820	1-535-143-51	LEAD, JUMPER (20.00MM)			
R6677	1-249-417-11	CARBON	1K	5%	1/4W	R6821	1-535-143-51	LEAD, JUMPER (20.00MM)			
R6678	1-249-417-11	CARBON	1K	5%	1/4W	R6831	1-260-124-11	CARBON	120K	5%	1/2W
R6679	1-215-479-00	METAL	270K	1%	1/4W	R6832	1-216-434-11	METAL OXIDE	1.8K	5%	1W
R6681	1-215-467-00	METAL	82K	1%	1/4W	R6833	1-202-972-61	FUSIBLE	1	5%	1/4W
R6682	1-215-447-00	METAL	12K	1%	1/4W	R6834	1-535-143-21	LEAD, JUMPER (12.5MM)			
R6683	1-215-429-00	METAL	2.2K	1%	1/4W	R6835	1-260-288-11	CARBON	0.47	5%	1/2W
R6684	1-247-807-31	CARBON	100	5%	1/4W	R6836	1-249-432-11	CARBON	18K	5%	1/4W
R6685	1-249-417-11	CARBON	1K	5%	1/4W	R6837	1-215-919-11	METAL OXIDE	2.2K	5%	3W
R6686	1-215-449-00	METAL	15K	1%	1/4W	R6838	1-214-905-11	METAL	47K	1%	1/2W
R6687	1-249-431-11	CARBON	15K	5%	1/4W	R6839	1-215-919-11	METAL OXIDE	2.2K	5%	3W
R6688	1-249-417-11	CARBON	1K	5%	1/4W	R6840	1-247-843-11	CARBON	3.3K	5%	1/4W
R6689	1-247-843-11	CARBON	3.3K	5%	1/4W	R6842	1-260-123-11	CARBON	100K	5%	1/2W
R6690	1-249-429-11	CARBON	10K	5%	1/4W	R6843	1-249-429-11	CARBON	10K	5%	1/4W
R6691	1-215-446-00	METAL	11K	1%	1/4W	R6844	1-249-441-11	CARBON	100K	5%	1/4W
R6692	1-215-445-00	METAL	10K	1%	1/4W	R6845	1-249-433-11	CARBON	22K	5%	1/4W
R6700	1-215-441-00	METAL	6.8K	1%	1/4W	R6851	1-260-123-11	CARBON	100K	5%	1/2W
R6701	1-215-437-00	METAL	4.7K	1%	1/4W	R6852	1-260-123-11	CARBON	100K	5%	1/2W
R6702	1-215-441-00	METAL	6.8K	1%	1/4W	R6853	1-260-123-11	CARBON	100K	5%	1/2W
R6703	1-215-437-00	METAL	4.7K	1%	1/4W	R6854	1-249-417-11	CARBON	1K	5%	1/4W
R6704	1-249-383-11	CARBON	1.5	5%	1/4W	R6856	1-216-485-11	METAL OXIDE	5.6K	5%	3W
R6705	1-247-791-91	CARBON	22	5%	1/4W	R6857	1-216-485-11	METAL OXIDE	5.6K	5%	3W
R6706	1-249-389-11	CARBON	4.7	5%	1/4W	R6858	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R6707	1-215-888-00	METAL OXIDE	220	5%	2W	R6859	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R6708	1-214-798-21	METAL	1.8	1%	1/2W	R6880	1-215-436-00	METAL	4.3K	1%	1/4W
R6709	1-214-798-21	METAL	1.8	1%	1/2W	R6885	1-215-493-00	METAL	1M	1%	1/4W
R6710	1-247-843-11	CARBON	3.3K	5%	1/4W	R6886	1-215-477-00	METAL	220K	1%	1/4W
R6711	1-249-418-11	CARBON	1.2K	5%	1/4W	R6887	1-215-461-00	METAL	47K	1%	1/4W
R6801	1-215-440-00	METAL	6.2K	1%	1/4W	R6888	1-249-441-11	CARBON	100K	5%	1/4W
R6802	1-214-915-00	METAL	120K	1%	1/2W	R6891	1-535-143-61	LEAD, JUMPER (5.00MM)			
R6803	1-249-421-11	CARBON	2.2K	5%	1/4W	R6892	1-535-143-61	LEAD, JUMPER (5.00MM)			



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REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
R6895	1-249-443-11	CARBON	0.47 5% 1/4W	C8201	1-163-241-11	CERAMIC CHIP 39PF	5.00% 50V
R6896	1-249-443-11	CARBON	0.47 5% 1/4W	C8202	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
R6897	1-215-485-00	METAL	470K 1% 1/4W	C8203	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
R6898	1-215-493-00	METAL	1M 1% 1/4W	C8204	1-164-506-11	CERAMIC CHIP 4.7UF	16V
R6899	1-215-493-00	METAL	1M 1% 1/4W	C8205	1-165-319-11	CERAMIC CHIP 0.1UF	50V
< RELAY >				C8208	1-164-506-11	CERAMIC CHIP 4.7UF	16V
RY6601	$\Delta$ 1-755-266-11	RELAY, AC POWER		C8209	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
RY6602	$\Delta$ 1-755-167-11	RELAY, AC POWER		C8210	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
< TRANSFORMER >				C8211	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V
T6600	$\Delta$ 1-431-616-11	TRANSFORMER, CONVERTER		C8212	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V
T6601	$\Delta$ 1-433-516-11	TRANSFORMER, CONVERTER (PIT)		C8213	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
T6651	1-431-732-21	TRANSFORMER, CONVERTER (SRT)		C8214	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
T6801	1-433-489-31	TRANSFORMER, FERRITE (HDT)		C8215	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V
T6802	1-433-489-31	TRANSFORMER, FERRITE (HDT)		C8216	1-126-933-11	ELECT 100UF	20.00% 16V
T6804	$\Delta$	TRANSFORMER ASSY, FLYBACK		C8217	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
T6852	1-433-487-11	TRANSFORMER, FERRITE (DFT)		C8218	1-126-964-11	ELECT 10UF	20.00% 50V
< THERMISTOR >				C8219	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
TH6600	$\Delta$ 1-809-827-11	THERMISTOR, POSITIVE		C8220	1-126-964-11	ELECT 10UF	20.00% 50V
TH6700	1-800-193-00	THERMISTOR		C8221	1-104-664-11	ELECT 47UF	20.00% 16V
<b>*A-1651-137-A J Board, Complete</b>				C8222	1-104-664-11	ELECT 47UF	20.00% 16V
< CAPACITOR >				C8223	1-104-664-11	ELECT 47UF	20.00% 16V
C8105	1-126-933-11	ELECT 100UF	20.00% 16V	C8224	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8106	1-126-933-11	ELECT 100UF	20.00% 16V	C8225	1-104-664-11	ELECT 47UF	20.00% 16V
C8107	1-126-935-11	ELECT 470UF	20.00% 16V	C8227	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8108	1-126-933-11	ELECT 100UF	20.00% 16V	C8228	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8109	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8229	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8110	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8230	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8111	1-126-933-11	ELECT 100UF	20.00% 16V	C8231	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8112	1-107-715-11	ELECT 22UF	20.00% 16V	C8232	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8144	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V	C8233	1-104-664-11	ELECT 47UF	20.00% 16V
C8145	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V	C8234	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C8150	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C8235	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C8151	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V	C8236	1-126-933-11	ELECT 100UF	20.00% 16V
C8152	1-164-346-11	CERAMIC CHIP 1UF	16V	C8237	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8153	1-107-682-11	CERAMIC CHIP 1UF	10.00% 16V	C8238	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C8154	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C8239	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C8155	1-107-682-11	CERAMIC CHIP 1UF	10.00% 16V	C8240	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C8156	1-164-505-11	CERAMIC CHIP 2.2UF	16V	C8241	1-126-964-11	ELECT 10UF	20.00% 50V
C8157	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C8242	1-104-664-11	ELECT 47UF	20.00% 16V
C8159	1-104-664-11	ELECT 47UF	20.00% 16V	C8301	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V
C8200	1-104-664-11	ELECT 47UF	20.00% 16V	C8302	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
				C8303	1-126-933-11	ELECT 100UF	20.00% 16V
				C8304	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
				C8305	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
				C8306	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
				C8307	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
				C8308	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
C8309	1-126-961-11	ELECT 2.2UF	20.00% 50V	C8828	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8311	1-104-664-11	ELECT 47UF	20.00% 16V	C8829	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8313	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C8830	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8314	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C8831	1-126-964-11	ELECT 10UF	20.00% 50V
C8318	1-104-664-11	ELECT 47UF	20.00% 16V	C8832	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8321	1-104-664-11	ELECT 47UF	20.00% 16V	C8833	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8322	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V	C8834	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8323	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8835	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8324	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8836	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8325	1-126-964-11	ELECT 10UF	20.00% 50V	C8837	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8326	1-104-664-11	ELECT 47UF	20.00% 16V	C8838	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8327	1-107-682-11	CERAMIC CHIP 1UF	10.00% 16V	C8839	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C8328	1-104-664-11	ELECT 47UF	20.00% 16V	C8840	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8329	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C8841	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8331	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C8842	1-104-664-11	ELECT 47UF	20.00% 16V
C8332	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8843	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8333	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8844	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C8334	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8846	1-126-933-11	ELECT 100UF	20.00% 16V
C8335	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C8847	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8336	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8849	1-164-346-11	CERAMIC CHIP 1UF	16V
C8337	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8850	1-164-346-11	CERAMIC CHIP 1UF	16V
C8338	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8851	1-126-967-11	ELECT 47UF	20.00% 50V
C8345	1-164-346-11	CERAMIC CHIP 1UF	16V	C8852	1-164-346-11	CERAMIC CHIP 1UF	16V
C8346	1-126-963-11	ELECT 4.7UF	20.00% 50V	C8853	1-126-967-11	ELECT 47UF	20.00% 50V
C8349	1-163-113-00	CERAMIC CHIP 68PF	5.00% 50V	C8854	1-164-346-11	CERAMIC CHIP 1UF	16V
C8601	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V	C8855	1-164-346-11	CERAMIC CHIP 1UF	16V
C8602	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V	C8856	1-164-346-11	CERAMIC CHIP 1UF	16V
C8605	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V	C8857	1-164-346-11	CERAMIC CHIP 1UF	16V
C8606	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V	C8858	1-164-346-11	CERAMIC CHIP 1UF	16V
C8607	1-104-664-11	ELECT 47UF	20.00% 16V	C8859	1-164-346-11	CERAMIC CHIP 1UF	16V
C8608	1-104-664-11	ELECT 47UF	20.00% 16V	C8860	1-164-346-11	CERAMIC CHIP 1UF	16V
C8609	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V	C8861	1-164-346-11	CERAMIC CHIP 1UF	16V
C8610	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V	C8862	1-164-346-11	CERAMIC CHIP 1UF	16V
C8611	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V	C8863	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8612	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V	C8864	1-164-346-11	CERAMIC CHIP 1UF	16V
C8613	1-104-664-11	ELECT 47UF	20.00% 16V	C8865	1-104-664-11	ELECT 47UF	20.00% 16V
C8614	1-104-664-11	ELECT 47UF	20.00% 16V	C8866	1-164-346-11	CERAMIC CHIP 1UF	16V
C8804	1-126-933-11	ELECT 100UF	20.00% 16V	C8867	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8812	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C8868	1-126-964-11	ELECT 10UF	20.00% 50V
C8814	1-104-664-11	ELECT 47UF	20.00% 25V	C8869	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8817	1-126-933-11	ELECT 100UF	20.00% 16V	C8896	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C8822	1-126-933-11	ELECT 100UF	20.00% 16V	C8897	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C8823	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C8898	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V
C8824	1-104-664-11	ELECT 47UF	20.00% 25V	C8899	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V
C8825	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V	C8900	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C8826	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C8901	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C8827	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8902	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
C8903	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	D8813	8-719-158-49	DIODE UDZ-TE-17-12B	
C8904	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V	D8814	8-719-158-49	DIODE UDZ-TE-17-12B	
C8905	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	D8900	8-719-056-85	DIODE UDZ-TE-17-8.2B	
C8906	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	D8901	8-719-158-49	DIODE UDZ-TE-17-12B	
C8907	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V	D8902	8-719-056-85	DIODE UDZ-TE-17-8.2B	
C8908	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	D8903	8-719-056-85	DIODE UDZ-TE-17-8.2B	
C8909	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V	D8904	8-719-056-85	DIODE UDZ-TE-17-8.2B	
C8910	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	D8905	8-719-056-85	DIODE UDZ-TE-17-8.2B	
C8911	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V	D8906	8-719-056-85	DIODE UDZ-TE-17-8.2B	
C8914	1-126-933-11	ELECT 100UF	20.00% 16V	D8907	8-719-158-49	DIODE UDZ-TE-17-12B	
C8977	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V	D8908	8-719-056-85	DIODE UDZ-TE-17-8.2B	
C8978	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V	D8909	8-719-056-85	DIODE UDZ-TE-17-8.2B	
< FILTER >				D8910	8-719-056-85	DIODE UDZ-TE-17-8.2B	
CF8150	1-760-106-11	FILTER, CERAMIC		D8911	8-719-056-85	DIODE UDZ-TE-17-8.2B	
CF8151	1-567-100-00	FILTER, CERAMIC		D8912	8-719-158-49	DIODE UDZ-TE-17-12B	
CF8152	1-760-450-21	FILTER, CERAMIC		D8913	8-719-158-49	DIODE UDZ-TE-17-12B	
CF8200	1-409-327-00	TRAP, CERAMIC (6.5MHZ)		D8914	8-719-158-49	DIODE UDZ-TE-17-12B	
< CONNECTOR >				D8915	8-719-158-49	DIODE UDZ-TE-17-12B	
CN8101	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P		< FILTER >			
CN8900	1-561-534-41	SOCKET, PIN 21P		FL8200	1-236-071-11	ENCAPSULATED COMPONENT	
CN8901	1-695-293-11	SOCKET 21P		FL8201	1-233-764-21	FILTER	
CN8902	1-695-293-11	SOCKET 21P		FL8203	1-236-071-11	ENCAPSULATED COMPONENT	
< DIODE >				FL8302	1-236-071-11	ENCAPSULATED COMPONENT	
D8150	8-719-421-57	DIODE MA73-TX		FL8304	1-236-071-11	ENCAPSULATED COMPONENT	
D8151	8-719-421-57	DIODE MA73-TX		FL8308	1-236-071-11	ENCAPSULATED COMPONENT	
D8152	8-719-421-57	DIODE MA73-TX		FL8801	1-236-071-11	ENCAPSULATED COMPONENT	
D8153	8-719-056-83	DIODE UDZ-TE-17-6.8B		FL8802	1-236-071-11	ENCAPSULATED COMPONENT	
D8200	8-719-158-49	DIODE UDZ-TE-17-12B		< IC >			
D8201	8-719-158-49	DIODE UDZ-TE-17-12B		IC8101	8-759-576-76	IC TDA2822D013TR	
D8202	8-719-158-49	DIODE UDZ-TE-17-12B		IC8150	8-759-478-90	IC U2861B-MFP-G3	
D8203	8-719-158-49	DIODE UDZ-TE-17-12B		IC8151	8-752-072-94	IC CXA1875AM-T4	
D8801	8-719-158-49	DIODE UDZ-TE-17-12B		IC8200	8-759-654-42	IC MSP3410D-C5QA-B4	
D8802	8-719-158-49	DIODE UDZ-TE-17-12B		IC8201	8-759-701-36	IC MC3403NS-E20	
D8803	8-719-158-49	DIODE UDZ-TE-17-12B		IC8202	8-759-908-15	IC TL431CZ	
D8804	8-719-158-49	DIODE UDZ-TE-17-12B		IC8301	8-752-096-06	IC CXA2163Q-T6	
D8805	8-719-158-49	DIODE UDZ-TE-17-12B		IC8302	8-759-485-79	IC TC7SET08FU (TE85R)	
D8806	8-719-158-49	DIODE UDZ-TE-17-12B		IC8601	8-759-182-88	IC PQ09TZ5U	
D8807	8-719-158-49	DIODE UDZ-TE-17-12B		IC8602	8-759-576-72	IC LF50CDT-TR	
D8808	8-719-158-49	DIODE UDZ-TE-17-12B		IC8603	8-759-576-72	IC LF50CDT-TR	
D8809	8-719-158-49	DIODE UDZ-TE-17-12B		IC8604	8-759-576-72	IC LF50CDT-TR	
D8810	8-719-158-49	DIODE UDZ-TE-17-12B		IC8801	8-752-096-83	IC CXA2149AQ-TL	
D8811	8-719-158-49	DIODE UDZ-TE-17-12B		< SOCKET >			
D8812	8-719-158-49	DIODE UDZ-TE-17-12B		J8901	1-774-747-11	JACK BLOCK, PIN	



REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
< COIL >				R8111	1-216-033-00	RES-CHIP 220 5%	1/10W
L8150	1-414-757-11	INDUCTOR 100UH		R8112	1-216-033-00	RES-CHIP 220 5%	1/10W
L8200	1-412-006-31	INDUCTOR CHIP 10UH		R8115	1-216-029-00	RES-CHIP 150 5%	1/10W
L8201	1-412-064-11	INDUCTOR CHIP 100UH		R8116	1-216-029-00	RES-CHIP 150 5%	1/10W
L8301	1-412-006-31	INDUCTOR CHIP 10UH		R8117	1-216-029-00	RES-CHIP 150 5%	1/10W
< TRANSISTOR >				R8118	1-216-029-00	RES-CHIP 150 5%	1/10W
Q8100	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8150	1-216-057-00	RES-CHIP 2.2K 5%	1/10W
Q8101	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8151	1-216-069-00	RES-CHIP 6.8K 5%	1/10W
Q8150	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8152	1-216-035-00	RES-CHIP 270 5%	1/10W
Q8151	1-801-806-11	TRANSISTOR DTC144EKA-T146		R8153	1-216-081-00	RES-CHIP 22K 5%	1/10W
Q8152	1-801-806-11	TRANSISTOR DTC144EKA-T146		R8154	1-216-067-00	RES-CHIP 5.6K 5%	1/10W
Q8153	1-801-806-11	TRANSISTOR DTC144EKA-T146		R8155	1-216-043-91	RES-CHIP 560 5%	1/10W
Q8154	1-801-806-11	TRANSISTOR DTC144EKA-T146		R8156	1-216-081-00	RES-CHIP 22K 5%	1/10W
Q8156	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8157	1-216-067-00	RES-CHIP 5.6K 5%	1/10W
Q8157	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8158	1-216-043-91	RES-CHIP 560 5%	1/10W
Q8200	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8159	1-216-081-00	RES-CHIP 22K 5%	1/10W
Q8201	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8160	1-216-067-00	RES-CHIP 5.6K 5%	1/10W
Q8202	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8161	1-216-043-91	RES-CHIP 560 5%	1/10W
Q8303	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8162	1-216-049-91	RES-CHIP 1K 5%	1/10W
Q8305	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8163	1-216-295-91	SHORT 0	
Q8306	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8164	1-216-295-91	SHORT 0	
Q8308	8-729-038-96	TRANSISTOR IMZ1A-T109		R8165	1-216-295-91	SHORT 0	
Q8309	8-729-038-96	TRANSISTOR IMZ1A-T109		R8167	1-216-025-91	RES-CHIP 100 5%	1/10W
Q8310	8-729-038-96	TRANSISTOR IMZ1A-T109		R8168	1-216-025-91	RES-CHIP 100 5%	1/10W
Q8809	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R		R8174	1-216-065-91	RES-CHIP 4.7K 5%	1/10W
Q8814	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8175	1-216-065-91	RES-CHIP 4.7K 5%	1/10W
Q8816	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R		R8176	1-216-295-91	SHORT 0	
Q8817	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8178	1-216-073-00	RES-CHIP 10K 5%	1/10W
Q8818	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8200	1-216-049-91	RES-CHIP 1K 5%	1/10W
Q8819	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8201	1-216-295-91	SHORT 0	
Q8820	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8202	1-216-021-00	RES-CHIP 68 5%	1/10W
Q8901	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R		R8203	1-216-069-00	RES-CHIP 6.8K 5%	1/10W
Q8902	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R		R8204	1-216-049-91	RES-CHIP 1K 5%	1/10W
< RESISTOR >				R8205	1-216-069-00	RES-CHIP 6.8K 5%	1/10W
JR8101	1-216-295-91	SHORT 0		R8206	1-216-049-91	RES-CHIP 1K 5%	1/10W
JR8402	1-216-295-91	SHORT 0		R8208	1-216-037-00	RES-CHIP 330 5%	1/10W
R8103	1-216-075-00	RES-CHIP 12K 5%	1/10W	R8209	1-216-659-11	METAL CHIP 2.2K 0.5%	1/10W
R8104	1-216-075-00	RES-CHIP 12K 5%	1/10W	R8210	1-216-025-91	RES-CHIP 100 5%	1/10W
R8105	1-216-057-00	RES-CHIP 2.2K 5%	1/10W	R8211	1-216-295-91	SHORT 0	
R8106	1-216-081-00	RES-CHIP 22K 5%	1/10W	R8212	1-216-295-91	SHORT 0	
R8107	1-216-081-00	RES-CHIP 22K 5%	1/10W	R8213	1-216-295-91	SHORT 0	
R8108	1-216-057-00	RES-CHIP 2.2K 5%	1/10W	R8216	1-216-025-91	RES-CHIP 100 5%	1/10W
R8109	1-249-389-11	CARBON 4.7 5%	1/4W	R8217	1-216-025-91	RES-CHIP 100 5%	1/10W
R8110	1-249-389-11	CARBON 4.7 5%	1/4W	R8218	1-216-049-91	RES-CHIP 1K 5%	1/10W
				R8219	1-216-025-91	RES-CHIP 100 5%	1/10W
				R8220	1-216-025-91	RES-CHIP 100 5%	1/10W
				R8221	1-216-025-91	RES-CHIP 100 5%	1/10W

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
R8222	1-216-295-91	SHORT	0	R8338	1-216-017-91	RES-CHIP	47 5% 1/10W
R8223	1-216-089-91	RES-CHIP	47K 5% 1/10W	R8339	1-216-017-91	RES-CHIP	47 5% 1/10W
R8224	1-216-089-91	RES-CHIP	47K 5% 1/10W	R8340	1-216-063-91	RES-CHIP	3.9K 5% 1/10W
R8225	1-216-089-91	RES-CHIP	47K 5% 1/10W	R8341	1-216-041-00	RES-CHIP	470 5% 1/10W
R8226	1-216-089-91	RES-CHIP	47K 5% 1/10W	R8344	1-216-091-00	RES-CHIP	56K 5% 1/10W
R8227	1-216-089-91	RES-CHIP	47K 5% 1/10W	R8345	1-216-079-00	RES-CHIP	18K 5% 1/10W
R8228	1-216-089-91	RES-CHIP	47K 5% 1/10W	R8346	1-216-091-00	RES-CHIP	56K 5% 1/10W
R8229	1-216-295-91	SHORT	0	R8347	1-216-079-00	RES-CHIP	18K 5% 1/10W
R8230	1-216-081-00	RES-CHIP	22K 5% 1/10W	R8350	1-216-049-91	RES-CHIP	1K 5% 1/10W
R8231	1-216-089-91	RES-CHIP	47K 5% 1/10W	R8806	1-216-085-00	RES-CHIP	33K 5% 1/10W
R8232	1-216-089-91	RES-CHIP	47K 5% 1/10W	R8807	1-216-089-91	RES-CHIP	47K 5% 1/10W
R8233	1-216-089-91	RES-CHIP	47K 5% 1/10W	R8820	1-216-295-91	SHORT	0
R8234	1-216-089-91	RES-CHIP	47K 5% 1/10W	R8826	1-216-051-00	RES-CHIP	1.2K 5% 1/10W
R8235	1-216-089-91	RES-CHIP	47K 5% 1/10W	R8838	1-216-025-91	RES-CHIP	100 5% 1/10W
R8236	1-216-089-91	RES-CHIP	47K 5% 1/10W	R8839	1-216-085-00	RES-CHIP	33K 5% 1/10W
R8237	1-216-043-91	RES-CHIP	560 5% 1/10W	R8840	1-216-089-91	RES-CHIP	47K 5% 1/10W
R8238	1-216-063-91	RES-CHIP	3.9K 5% 1/10W	R8841	1-216-025-91	RES-CHIP	100 5% 1/10W
R8239	1-216-069-00	RES-CHIP	6.8K 5% 1/10W	R8846	1-216-295-91	SHORT	0
R8240	1-216-651-11	METAL CHIP	1K 0.5% 1/10W	R8848	1-216-035-00	RES-CHIP	270 5% 1/10W
R8243	1-216-021-00	RES-CHIP	68 5% 1/10W	R8850	1-216-033-00	RES-CHIP	220 5% 1/10W
R8300	1-216-295-91	SHORT	0	R8851	1-216-059-00	RES-CHIP	2.7K 5% 1/10W
R8302	1-216-017-91	RES-CHIP	47 5% 1/10W	R8853	1-216-051-00	RES-CHIP	1.2K 5% 1/10W
R8306	1-216-083-00	RES-CHIP	27K 5% 1/10W	R8854	1-216-029-00	RES-CHIP	150 5% 1/10W
R8308	1-216-039-00	RES-CHIP	390 5% 1/10W	R8855	1-216-031-00	RES-CHIP	180 5% 1/10W
R8310	1-216-037-00	RES-CHIP	330 5% 1/10W	R8857	1-216-089-91	RES-CHIP	47K 5% 1/10W
R8312	1-216-091-00	RES-CHIP	56K 5% 1/10W	R8858	1-216-079-00	RES-CHIP	18K 5% 1/10W
R8313	1-216-081-00	RES-CHIP	22K 5% 1/10W	R8859	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R8314	1-216-295-91	SHORT	0	R8861	1-216-295-91	SHORT	0
R8315	1-216-121-91	RES-CHIP	1M 5% 1/10W	R8863	1-216-295-91	SHORT	0
R8316	1-216-037-00	RES-CHIP	330 5% 1/10W	R8865	1-216-022-00	RES-CHIP	75 5% 1/10W
R8317	1-216-295-91	SHORT	0	R8866	1-216-022-00	RES-CHIP	75 5% 1/10W
R8318	1-216-295-91	SHORT	0	R8867	1-216-049-91	RES-CHIP	1K 5% 1/10W
R8319	1-216-295-91	SHORT	0	R8868	1-216-017-91	RES-CHIP	47 5% 1/10W
R8320	1-216-041-00	RES-CHIP	470 5% 1/10W	R8869	1-216-017-91	RES-CHIP	47 5% 1/10W
R8322	1-216-049-91	RES-CHIP	1K 5% 1/10W	R8871	1-216-049-91	RES-CHIP	1K 5% 1/10W
R8323	1-216-017-91	RES-CHIP	47 5% 1/10W	R8872	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R8324	1-216-041-00	RES-CHIP	470 5% 1/10W	R8873	1-216-113-00	RES-CHIP	470K 5% 1/10W
R8326	1-216-017-91	RES-CHIP	47 5% 1/10W	R8874	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R8328	1-216-025-91	RES-CHIP	100 5% 1/10W	R8875	1-216-113-00	RES-CHIP	470K 5% 1/10W
R8329	1-216-025-91	RES-CHIP	100 5% 1/10W	R8876	1-216-093-91	RES-CHIP	68K 5% 1/10W
R8330	1-216-041-00	RES-CHIP	470 5% 1/10W	R8877	1-216-093-91	RES-CHIP	68K 5% 1/10W
R8331	1-216-041-00	RES-CHIP	470 5% 1/10W	R8878	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R8332	1-216-041-00	RES-CHIP	470 5% 1/10W	R8879	1-216-689-11	METAL CHIP	39K 0.5% 1/10W
R8333	1-216-041-00	RES-CHIP	470 5% 1/10W	R8880	1-216-295-91	SHORT	0
R8334	1-216-041-00	RES-CHIP	470 5% 1/10W	R8881	1-216-089-91	RES-CHIP	47K 5% 1/10W
R8336	1-216-041-00	RES-CHIP	470 5% 1/10W	R8882	1-216-079-00	RES-CHIP	18K 5% 1/10W
R8337	1-216-041-00	RES-CHIP	470 5% 1/10W	R8883	1-216-645-11	METAL CHIP	560 0.5% 1/10W

REF.NO.	PART.NO	DESCRIPTION	REMARK			REF.NO.	PART.NO	DESCRIPTION	REMARK		
R8885	1-216-645-11	METAL CHIP	560	0.5%	1/10W	R8943	1-216-022-00	RES-CHIP	75	5%	1/10W
R8886	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R8944	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R8888	1-216-033-00	RES-CHIP	220	5%	1/10W	R8945	1-216-022-00	RES-CHIP	75	5%	1/10W
R8889	1-216-033-00	RES-CHIP	220	5%	1/10W	R8946	1-216-017-91	RES-CHIP	47	5%	1/10W
R8890	1-216-295-91	SHORT	0			R8947	1-216-039-00	RES-CHIP	390	5%	1/10W
R8892	1-216-295-91	SHORT	0			R8948	1-216-049-91	RES-CHIP	1K	5%	1/10W
R8893	1-216-295-91	SHORT	0			R8949	1-216-022-00	RES-CHIP	75	5%	1/10W
R8895	1-216-295-91	SHORT	0			R8950	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8900	1-216-039-00	RES-CHIP	390	5%	1/10W	R8951	1-216-017-91	RES-CHIP	47	5%	1/10W
R8901	1-216-049-91	RES-CHIP	1K	5%	1/10W	R8952	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8902	1-216-039-00	RES-CHIP	390	5%	1/10W	R8953	1-216-035-00	RES-CHIP	270	5%	1/10W
R8903	1-216-089-91	RES-CHIP	47K	5%	1/10W	R8954	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8904	1-216-089-91	RES-CHIP	47K	5%	1/10W	R8955	1-216-039-00	RES-CHIP	390	5%	1/10W
R8905	1-216-113-00	RES-CHIP	470K	5%	1/10W	R8956	1-216-049-91	RES-CHIP	1K	5%	1/10W
R8906	1-216-035-00	RES-CHIP	270	5%	1/10W	R8957	1-216-025-91	RES-CHIP	100	5%	1/10W
R8907	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R8958	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8908	1-216-035-00	RES-CHIP	270	5%	1/10W	R8959	1-216-022-00	RES-CHIP	75	5%	1/10W
R8909	1-216-049-91	RES-CHIP	1K	5%	1/10W	R8960	1-216-017-91	RES-CHIP	47	5%	1/10W
R8911	1-216-025-91	RES-CHIP	100	5%	1/10W	R8961	1-216-022-00	RES-CHIP	75	5%	1/10W
R8913	1-216-022-00	RES-CHIP	75	5%	1/10W	R8962	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R8914	1-216-071-00	RES-CHIP	8.2K	5%	1/10W	R8963	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8915	1-216-022-00	RES-CHIP	75	5%	1/10W	R8964	1-216-035-00	RES-CHIP	270	5%	1/10W
R8916	1-216-017-91	RES-CHIP	47	5%	1/10W	R8965	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8917	1-216-017-91	RES-CHIP	47	5%	1/10W	R8968	1-216-022-00	RES-CHIP	75	5%	1/10W
R8918	1-216-113-00	RES-CHIP	470K	5%	1/10W	R8969	1-216-017-91	RES-CHIP	47	5%	1/10W
R8919	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R8974	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8922	1-216-022-00	RES-CHIP	75	5%	1/10W	R8977	1-216-037-00	RES-CHIP	330	5%	1/10W
R8923	1-216-022-00	RES-CHIP	75	5%	1/10W	R8978	1-216-037-00	RES-CHIP	330	5%	1/10W
R8924	1-216-022-00	RES-CHIP	75	5%	1/10W	R8979	1-216-045-00	RES-CHIP	680	5%	1/10W
R8925	1-216-022-00	RES-CHIP	75	5%	1/10W	R8980	1-216-045-00	RES-CHIP	680	5%	1/10W
R8926	1-216-017-91	RES-CHIP	47	5%	1/10W	R8981	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8927	1-216-017-91	RES-CHIP	47	5%	1/10W	R8982	1-216-079-00	RES-CHIP	18K	5%	1/10W
R8928	1-216-017-91	RES-CHIP	47	5%	1/10W	R8996	1-216-059-91	RES-CHIP	2.7K	5%	1/10W
R8929	1-216-039-00	RES-CHIP	390	5%	1/10W	R8997	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R8930	1-216-049-91	RES-CHIP	1K	5%	1/10W	R8998	1-216-041-91	RES-CHIP	470K	5%	1/10W
R8931	1-216-039-00	RES-CHIP	390	5%	1/10W	< CRYSTAL >					
R8932	1-216-049-91	RES-CHIP	1K	5%	1/10W	X8200	1-781-148-21	VIBRATOR, CRYSTAL			
R8933	1-216-089-91	RES-CHIP	47K	5%	1/10W	X8301	1-781-612-11	VIBRATOR, CRYSTAL			
R8934	1-216-089-91	RES-CHIP	47K	5%	1/10W						
R8935	1-216-113-00	RES-CHIP	470K	5%	1/10W						
R8936	1-216-113-00	RES-CHIP	470K	5%	1/10W						
R8937	1-216-035-00	RES-CHIP	270	5%	1/10W						
R8938	1-216-057-00	RES-CHIP	2.2K	5%	1/10W						
R8939	1-216-035-00	RES-CHIP	270	5%	1/10W						
R8940	1-216-057-00	RES-CHIP	2.2K	5%	1/10W						
R8941	1-216-025-91	RES-CHIP	100	5%	1/10W						
R8942	1-216-009-91	RES-CHIP	22	5%	1/10W						

REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
<b>*A-1644-108-A VM Board, Complete</b>				< TRANSISTOR >			
	4-382-854-11	SCREW (M3X10), P, SW (+)		Q5400	8-729-119-78	TRANSISTOR 2SC1740S-RT	
	< CAPACITOR >			Q5401	8-729-119-78	TRANSISTOR 2SC1740S-RT	
C5400	1-107-883-11	ELECT 330UF	20.00% 16V	Q5402	8-729-119-78	TRANSISTOR 2SC1740S-RT	
C5401	1-126-935-11	ELECT 470UF	20.00% 16V	Q5403	8-729-119-78	TRANSISTOR 2SC1740S-RT	
C5402	1-137-150-11	MYLAR 0.01UF	5.00% 50V	Q5404	8-729-026-39	TRANSISTOR 2SA933AS-RT	
C5403	1-126-935-11	ELECT 470UF	20.00% 6.3V	Q5405	8-729-026-39	TRANSISTOR 2SA933AS-RT	
C5405	1-126-933-11	ELECT 100UF	20.00% 16V	Q5406	8-729-045-05	TRANSISTOR 2SA2005	
				Q5407	8-729-045-04	TRANSISTOR 2SC5511	
C5406	1-126-935-11	ELECT 470UF	20.00% 6.3V	Q5408	8-729-026-39	TRANSISTOR 2SA933AS-RT	
C5407	1-107-364-11	MYLAR 0.01UF	10.00% 200V	Q5409	8-729-119-78	TRANSISTOR 2SC1740S-RT	
C5408	1-107-364-11	MYLAR 0.01UF	10.00% 200V	< RESISTOR >			
C5409	1-107-649-11	ELECT 2.2UF	20.00% 250V	R5401	1-247-843-11	CARBON 3.3K 5%	1/4W
C5410	1-130-471-00	MYLAR 0.001UF	5.00% 50V	R5402	1-249-413-11	CARBON 470 5%	1/4W
				R5403	1-249-393-11	CARBON 10 5%	1/4W
C5411	1-130-471-00	MYLAR 0.001UF	5.00% 50V	R5404	1-249-420-11	CARBON 1.8K 5%	1/4W
C5412	1-126-935-11	ELECT 470UF	20.00% 16V	R5405	1-249-425-11	CARBON 4.7K 5%	1/4W
C5413	1-126-935-11	ELECT 470UF	20.00% 16V				
C5414	1-107-652-11	ELECT 10UF	20.00% 250V	R5406	1-249-425-11	CARBON 4.7K 5%	1/4W
C5415	1-107-363-91	MYLAR 0.0068UF	10.00% 200V	R5407	1-249-399-11	CARBON 33 5%	1/4W
				R5408	1-247-807-31	CARBON 100 5%	1/4W
C5417	1-102-959-91	CERAMIC 22PF	5.00% 50V	R5409	1-249-409-11	CARBON 220 5%	1/4W
C5418	1-102-947-00	CERAMIC 10PF	0.50PF 50V	R5410	1-249-401-11	CARBON 47 5%	1/4W
	< CONNECTOR >						
CN5402	*1-568-878-51	PIN, CONNECTOR 3P		R5411	1-249-401-11	CARBON 47 5%	1/4W
CN5444	*1-770-723-11	CONNECTOR, BOARD TO BOARD 8P		R5412	1-249-429-11	CARBON 10K 5%	1/4W
CN5602	*1-568-881-51	PIN, CONNECTOR 6P		R5413	1-249-414-11	CARBON 560 5%	1/4W
	< DIODE >			R5414	1-249-432-11	CARBON 18K 5%	1/4W
D5400	8-719-991-33	DIODE 1SS133T-77		R5415	1-247-739-11	CARBON 100 5%	1/2W
D5401	8-719-510-02	DIODE D1NS4-TR					
D5402	1-535-143-61	LEAD, JUMPER (5.00MM)		R5416	1-249-389-11	CARBON 4.7 5%	1/4W
D5403	8-719-991-33	DIODE 1SS133T-77		R5417	1-249-432-11	CARBON 18K 5%	1/4W
D5404	8-719-991-33	DIODE 1SS133T-77		R5418	1-249-414-11	CARBON 560 5%	1/4W
				R5419	1-249-421-11	CARBON 2.2K 5%	1/4W
D5405	8-719-924-11	DIODE MTZJ-T-77-22		R5420	1-249-421-11	CARBON 2.2K 5%	1/4W
D5406	8-719-924-11	DIODE MTZJ-T-77-22					
	< FERRITE BEAD >			R5421	1-249-387-11	CARBON 3.3 5%	1/4W
FB5400	1-535-143-61	LEAD, JUMPER (5.00MM)		R5422	1-249-405-11	CARBON 100 5%	1/4W
FB5401	1-535-143-61	LEAD, JUMPER (5.00MM)		R5423	1-215-915-11	METAL OXIDE 470 5%	3W
	< COIL >			R5425	1-535-143-61	LEAD, JUMPER (5.00MM)	
L5400	1-410-784-41	INDUCTOR 0.18UH		R5427	1-249-401-11	CARBON 47 5%	1/4W
L5401	1-408-602-31	INDUCTOR 8.2UH					
				R5428	1-249-413-11	CARBON 470 5%	1/4W
				R5429	1-249-413-11	CARBON 470 5%	1/4W
				R5430	1-249-417-11	CARBON 1K 5%	1/4W
				R5432	1-249-415-11	CARBON 680 5%	1/4W
				R5433	1-249-400-11	CARBON 39 5%	1/4W
				R5434	1-249-395-11	CARBON 15 5%	1/4W



The components identified by shading and marked  $\Delta$  are critical for safety  
Replace only with the part number specified.

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
<b>MISCELLANEOUS</b>							
$\Delta$	1-416-654-11	COIL DEMAGNETIC					
	1-452-032-00	MAGNET, DISK; 10MM					
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM					
$\Delta$	1-453-340-11	TRANSFORMER ASSY, FLYBACK (NX4522//U214)					
	1-542-436-11	SPEAKER (24X4CM)					
	1-529-417-11	SPEAKER (8CM)					
	1-452-896-11	COIL, NA ROTATION (RT200)					
$\Delta$	1-571-433-31	SWITCH, PUSH (AC POWER)					
$\Delta$	1-690-270-21	CORD, POWER (WITH CONNECTOR)					
$\Delta$	8-453-011-11	NECK ASSY, (NA-299-M)					
	1-693-339-11	TUNER/VIF (FR) (KV-29FQ65B)					
	1-693-338-11	TUNER/VIF (AEP) (KV-29FQ65E/29FQ65K)					
$\Delta$	8-735-053-05	PICTURE TUBE (M68LNH060X)					
$\Delta$	8-451-504-31	DEFLECTION YOKE (Y29RSC-S)					
$\Delta$	1-251-807-22	CAP ASSY, HIGH VOLTAGE					
	1-790-082-11	CABLE, RF					
	*1-555-716-51	CABLE, PIN					
	1-542-437-11	SPEAKER (2CM)					
<b>ACCESSORIES AND PACKAGING MATERIALS</b>							
	4-205-733-21	MANUAL, INSTRUCTION (KV-29FQ65B) (GERMAN/FRENCH/ITALIAN/DUTCH)					
	4-205-733-11	MANUAL, INSTRUCTION (KV-29FQ65E) (DANISH/GERMAN/SPANISH/GREEK/ITALIAN/ NORWEGIAN/PORTUGUESE/SWEDISH/FINNISH/TURKISH)					
	4-205-733-31	MANUAL, INSTRUCTION (KV-29FQ65K) (BULGARIAN/CZECH/ENGLISH/HUNGARIAN/POLISH/ RUSSIAN)					
	*4-029-168-01	BAG, PROTECTION					
	*4-205-198-01	INDIVIDUAL CARTON					
	*4-205-199-01	CUSHION (UPPER) (ASSY)					
	*4-205-200-01	CUSHION (LOWER) (ASSY)					
<b>REMOTE COMMANDER</b>							
	1-418-572-21	REMOTE COMMANDER (RM-893)					

# TRACE

A new TV Repair Assistance Tool that combines ease of use and powerful PC software tools to allow you to save valuable time during many TV repairs.



The TRACE interface connects to the PC's serial port. It provides connection to the TV's I<sup>2</sup>C bus and can be provided with an InfraRed transmitter (optional).

The interface is powered by a standard 9 V PP3 battery for portable use, and can also be powered by an external 9V/25mA DC power supply.

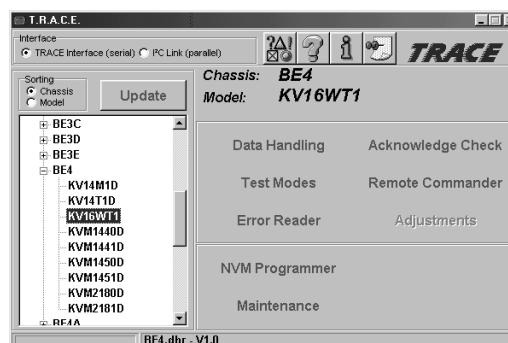
The TRACE software that is supplied with the interface allows you to:

- Read, restore and compare NVM contents via the I<sup>2</sup>C bus
- Acknowledge check of all I<sup>2</sup>C devices in the TV set
- Read Error Codes (emulation of the Error Reader tool)

With the optional IR Add-on kit, the following features can be added:

- Remote Commander emulation
- User programmable Functional Check through Infrared
- Fast and documented Test Mode setting of all Sony TV chassis

Additional features such as Adjustments and Troubleshooting are available in chassis-dependent software modules. Please contact your local Sony Service organisation for the latest information.



*Note: For workshops already using the existing I<sup>2</sup>C Link parallel port interface (9-948-320-30), this software can be used as well, replacing the TV Data Handling software (9-948-340-50), but Error Reader and IR functions can only be accessed with the TRACE interface.*

Partnumbers: TRACE Starter Kit (TRACE interface + software): 9-948-320-70  
 TRACE Software (for users of the I<sup>2</sup>C Link interface): 9-948-340-80  
 TRACE IR Add-on (IR interface + Remote Commander software): 9-948-320-80

PC requirements: IBM-compatible PC with operating system Windows95, Windows98, or WindowsNT\*.

\* WindowsNT only supported with TRACE interface

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